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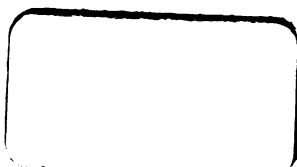
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REPORT
OF
THE ROYAL COMMISSIONERS
APPOINTED TO INQUIRE INTO THE
UNIVERSITIES OF SCOTLAND,
WITH
EVIDENCE AND APPENDIX.

VOLUME III.

EVIDENCE—PART II.

Presented to both Houses of Parliament by Command of Her Majesty.



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MINUTES OF EVIDENCE

TAKEN BEFORE THE

UNIVERSITIES (SCOTLAND) COMMISSION.

FRIDAY, 1st December 1876—(*Forty-Third Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.
DR. JOHN MUIR.
ARCHIBALD CAMPBELL SWINTON, Esq.
JAMES ALEXANDER CAMPBELL, Esq.

Professor STRUTHERS, examined.

7777. *The Chairman*.—You are Professor of Anatomy in the University of Aberdeen?—I am.

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7778. Appointed, I think, in 1863?—Yes.

7779. After the union of the colleges?—Yes; three years afterwards.

7780. You were not educated at Aberdeen?—No; at Edinburgh.

7781. And you are an M.D. of Edinburgh?—Yes.

7782. I think you have for a number of years taken a great interest in University matters?—I have.

7783. And have written upon the subject?—I have.

7784. There are various points of inquiry under this Commission, and we should like to have your opinion upon each of them separately, in so far as you desire to give evidence upon them. Will you give the Commissioners your views upon the constitution and powers of the University Court?—I am of opinion that the number of members in our University Court is too small. Our locality is so remote that the presence of the Rector cannot always be reckoned on; and one of the other members, as experience has shown, is often not present, reducing the meeting to a quorum of four. But even were all the six present, I think there should be one or two more members. I agree with the view that the General Council should have a second assessor, as I think that the General Council is the most suitable of the present electing bodies to be entrusted with that power. The General Council would then have the same number

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of representatives in the Court as the Senatus has. I am of opinion that there should be an assessor appointed by the Crown in each University Court, if it could be the means of securing the appointment of a man of high legal position,—one of the sheriffs, for instance, or, if possible, one of the judges in the Court of Session. If the same Crown member were to be appointed for all the four University Courts, it would, I think, be a further advantage, as he could bring to each University Court the experience of the other Universities. The Lord Advocate and Solicitor-General for the time being are too busy, and to take the members of Parliament for the Universities would introduce the political element, which it is desirable to avoid in University affairs. I think, decidedly, that a Crown member, on the supposition that he would be a legal gentleman of position, would be the best addition that could be made to our University Courts. This applies more particularly to the provincial Universities, as Edinburgh has a larger choice of such men, but the Court of Edinburgh University might, I think, also be improved by an additional member sent in by the Crown. Were I to propose any change on the Senatus representation, it would be that the assessor sent in by the Senatus should not be a member of Senatus. That opinion has perhaps in part a local, and possibly a temporary application, for the question in Aberdeen, from what I have seen, has been from which of the two now united colleges the assessor should be taken. But irrespective of that local reason, I think it would be a good thing to go out of our own body, as is done by the Glasgow Senatus in electing the ‘Dean of Faculties’ as a member of Court. If a professor is sent in, we have a member of the inferior Court sitting in the superior Court on the affairs of his colleagues, and very possibly in an appeal in which he is concerned. The Senatus, I think, should communicate as much as possible with the Court in writing, so that the minority as well as the majority would always be represented, while under the present system the assessor sitting in the Court represents one side, or, it may be, only himself. In regard to the powers of the Court, I think they are very well expressed in section 12 of the Universities Act. They are great, but I would not curtail them. I do not look on the Court with that jealousy which some professors appear to have of it. I have entire confidence in a well constituted University Court, and it was, I consider, a vast improvement to transfer these powers from the Senatus to the Court. I would not, however, concede the demands made by some, that each University should have the power of altering an Ordinance without the sanction of the Privy Council, as required by the 19th clause of the Universities Act. It is a most useful safeguard to allow the other Universities an opportunity of objecting. An alternative would be to require the approval of a joint meeting of the four University Courts; but that would be voting by majority of interests, while I believe the Privy Council, after hearing parties, is likely to grant what is reasonable. It is in the interest of improvement that I desire to see this restriction maintained. Were each University left free to act independently, my fear would be that there would be changes in a backward direction, injurious both to the public interest and to the University itself. I hardly know what is meant by those who speak of permitting each University to develop its individuality. There are undesirable individualities as well as good individualities, and I should fear that the development of the former would be the most likely. For the latter, there is room within Ordinances, or they may be specially provided for by Ordinances, and the Privy Council would not be likely to refuse to allow an Ordinance to be changed on sufficient

reason being shown that the individuality is one to be encouraged. I do not see how a line can be drawn between freedom and restriction in this respect.

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7785. I see you assume, in the opinion you have given about the constitution of the University Court, that the Senatus have at present two representatives. One of these you suppose to be the Principal?—Yes.

7786. But is it not possible that the Principal may have views quite different from those of the Professors?—Yes.

7787. And he is not sent to the Court as their representative, but sits there *ex officio*?—Quite so.

7788. Subject to the change you suggest as to who the representative of the Senatus ought to be, would you be inclined to give the Senatus another representative when you give an additional representative to the General Council?—I think we have enough of representation,—too much, perhaps.

7789. Then, according to your plan, as I understand it, there would be just an addition of one member?—I suggest two members,—one from the General Council and one appointed by the Crown.

7790. With regard to the appointment by the Crown, your desire seems to be to have a gentleman of legal position and experience?—Yes.

7791. Do you not think that would be very difficult of attainment in what you have called the provincial Universities?—I should gladly take the Sheriff of Aberdeenshire.

7792. Has he time for it?—There might be a difficulty in that respect. I may observe that my opinion is partly founded on the fact that we have had an admirable legal gentleman in our Court, Mr. Webster; but we cannot always have him, and any increase made I should like to see made in that direction.

7793. *Mr. Campbell.*—Do you think that the member of the Court appointed by the Crown, supposing he were such a man as you have described, would be likely to attend,—especially if he were also a member of the other University Courts?—The important meetings of our Court are not very frequent.

7794. *The Chairman.*—Do you think any change should be made on the functions of the General Council?—I have attended nearly all the meetings of our General Council, and have sat on most of its committees, and I must say that I do not think it a body to which direct power should be entrusted. The great use of the Council is as a talking body. Any abuses or grievances are sure to be brought up there, and any suggestions for improvement may be made. I would not give the General Council even the power of a veto on the enactments of the Court. It would not only delay business, but the meetings of the General Council cannot be said to represent the Council. The meetings are small,—sometimes very small,—while the Council numbers nearly 2500 members. It would be putting power into the hands of a few local members, unless proxies were allowed, and that would open the door to great abuse in canvassing for them. It might suffice were there one statutory meeting a year, in April, with power to adjourn, and power to meet at any time on the requisition of a certain number of members. I say so, because in Aberdeen I have seen meetings with almost no business to transact. I would not allow any of its powers to be delegated to committees. I have known committees to the meetings of which only two or three members came, sometimes only one. The whole machinery is too loose to be the depository of direct power. I do not say this from any unfriendly feeling to the General Council; on the contrary, I consider it a

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body of very great value in the University, but only as a body for discussion, and exercising the indirect power of electing part of the University Court. I would suggest that registration as members of the General Council should be required of all graduates at the time of graduation. I think that the list of the General Council, as contained in the University Calendar, should be a record in which we could rely on finding the name of every graduate of the University. I think also that the offers to which graduates are exposed from certain political persons to effect their registration on certain political understandings are, to say the least, indecorous. I doubt whether the Universities can afford to dispense with the £1 payable for registration. The average receipts from registration of members of Council in Aberdeen University during the five years ending 1875 were £79, 5s. 6d. A considerable number, probably about a fourth, do not register.

7795. Do you mean that one-fourth of the gentlemen who graduate in the course of a year do not register?—Yes, on an average, and many are not now on the register.

7796. But I mean of new graduates?—Of new graduates not many register, I should say. Registration comes in waves before an election, when they register, or are registered, largely; at other times we register few. Thus, the receipts for registration in the five years above referred to were—in 1871, £27; in 1872, £29, 7s. 6d.; in 1873, £55; in 1874, £114; in 1875, £171.

7797. You are not prepared to dispense with the fee for registration?—I should be very happy if we could afford it, but I doubt if we can.

7798. But if you do not dispense with the fee, is not compulsory registration a rather strong measure?—especially if a graduate were to say, 'I have a particular objection to being a member of the General Council; I do not want to have the political franchise; I do not want to be exposed to canvassing; I like a quiet life'?—The fact is, he is exposed to canvassing in order to register. But I desire to see registration universal from the academic rather than from the political point of view.

7799. The produce of this fee, you say, is only about £79 a year?—Yes, on an average.

7800. *Mr. Campbell.*—That goes towards paying the salary of the registrar?—Yes, and towards the expenses of the General Council meetings, advertising, printing, and so on.

7801. Do you know if it suffices to pay the expenses?—It used to do so, but I believe scarcely now. The Parliamentary privilege entailed an annual expense of about £50 for making up the register. This costs £2 for every 100 names on the register, by Act of Parliament.

7802. *The Chairman.*—Will you give us your opinion in regard to the course of study and regulations for graduation in the Faculty of Medicine?—In connection with this inquiry, I beg to hand in to the Commission the following table which I have prepared, showing the number of students in the several faculties since 1860–61, the first year of the union of King's College and Marischal College to form the University of Aberdeen:—

	Arts.	Medicine.		Divinity.	Law.		Deduct attending in two Faculties.	Total Students.*
		Winter.	Summer.		Winter.	Summer.		
1860-61	413	146	137	81	18	16	5	653
1861-62	393	166	106	69	12	9	14	626
1862-63	375	160	83	69	6	6	9	601
1863-64	353	149	98	54	10	11	6	560
1864-65	331	136	78	54	6	7	4	523
1865-66	324	138	94	47	15	13	16	508
1866-67	313	161	96	35	19	17	7	521
1867-68	320	172	108	40	11	11	12	531
1868-69	321	166	111	30	6	9	17	506
1869-70	310	175	131	40	15	11	13	527
1870-71	328	191	128	37	12	10	18	550
1871-72	331	202	145	39	18	18	13	577
1872-73	325	242	158	54	21	15	17	625
1873-74	352	251	149	42	11	11	23	633
1874-75	336	226	162	36	14	-	10	602
1875-76	347	245	190	32	22	-	19	627
1876-77	341	266	-	28	21	-	21	635†

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I shall have occasion, in the course of my evidence, to refer to the facts brought out by this table. We must allow the first three or four years for the transition, until the new University had become clear of the old, and settled down under the new regulations, and therefore take 1863-64, or 1864-65, as the first year from which to judge of the progress of the new University. Looking to the column showing the attendance in the Arts Faculty, we see that there was a marked diminution during these transition years; but this is not, I think, to be regretted, or to be regarded as a reproach to the faculty, as the two colleges, and especially Marischal College, were doing a good deal the work of grammar schools, and the school, not the University, is the right place for boys. The union of the two colleges I regard as having been a most beneficial measure, as having given Aberdeen a University properly so called, the possession of which is certainly a great advantage to the higher education of the city and neighbourhood, and the north of Scotland generally. Looking to the figures, it is seen that since the new period there has, in these thirteen or fourteen years, been no increase in the number of students in the Faculty of Arts. It has been mostly below the 353 or 331, as low as 310, and is still standing at about the number with which it began. The number in the Faculty of Divinity diminished, during the transition period, from between 70 and 80 to 54, and since the transition period, has diminished to about 30. In the Medical Faculty, it will be seen that the numbers, since 1864-65, with some minor undulations, have gone on very steadily

* As the totals represent individuals, those attending in medicine and in law in the summer session are not included, as those who attend in summer have, for the most part, attended also in winter. But those who commence medical study in summer should be added to the winter numbers, in order to give the total number of students of medicine during the academic year. For this an average of 20 may be added. But the number of students who began the study of medicine in May 1876 was 45, giving a total of 290 students of medicine last year. With a like number of beginners in the ensuing summer, the total students of medicine in the school this year would be 311.

† See note as to this table at the end of Professor Struthers' evidence.

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increasing, and have risen from the 136 of that year, to 266 in the winter session, and from 78 to 190 in the summer session. This increase in the medical school of the University is most gratifying to us, and in order to show that it has been genuine, from the increase in the number of students beginning the study of medicine in the school, I may mention that while the number of first-year students, in the earlier years of my incumbency as Professor of Anatomy, beginning in 1863-64, ran from 25 to 30, it has for some years back been over twice that number, and was last year 80, of whom 35 began in winter, and 45 in summer. The number of beginners in the present winter session is, I may mention, the largest I have ever had in winter, being 42. I may mention that it has struck me as a peculiarity of our medical school, compared with what I had seen in my previous experience as a teacher, that students continue in it throughout,—seldom leaving the school. It is not by bursaries that our students of medicine are either attracted to the school or retained in it. Nor is it by the degree, for, after being a year with us, they might, if they wished, pursue the rest of their studies in Edinburgh or in Glasgow, or in any other University school, and return to us for the degree, or have the Edinburgh or Glasgow degree if they preferred; but they remain with us throughout. I may be allowed further to say, for our students of medicine, as one who knows them well, that they are a quiet, steady, hard-working body of young men. They are extremely attentive to the teaching, and at the examinations their ambition is, not merely to pass, but to pass with good marks. They often distinguish themselves afterwards in the competitions for the public services. Some of our students of medicine are from England and the Colonies; the majority from the north and north-east of Scotland. I have looked at the 'Where from' of the first-year students in my class during the last three years, and find that one-third were from England and the Colonies, two-thirds from Scotland. These facts regarding the students of medicine will, I trust, satisfy the Commission that they have become an important part of the University, and that their education, and the wants of the medical department generally, are deserving of consideration in the arrangements of the University. In regard to the medical course and degree, I may perhaps best state the changes which I think should be made, by following the Ordinance (No. 16) by which medical study and graduation in Aberdeen are regulated. The *preliminary examination* in extra-professional education (secs. ii. and iii.) is, I think, a very good one as regards the subjects included, and my impression is, that it is so carried out in Aberdeen as not to be second to that in any of the other three Universities. As it is entirely a written examination, and occurs at the same periods in the other Universities, it would be easy to have the same examiners to set the papers and read the answers for all the four Universities, and I believe that we in Aberdeen would have no objection to this, if the other Universities desire it. I have heard of the proposal to make attendance on a course of lectures on natural philosophy compulsory for medical students, thus transferring that subject from the preliminary to the professional examinations. There can be no doubt that physics have a very important bearing on various parts of medical study, more so, it may be admitted, than the subjects of natural history or botany, which are within the curriculum; and, were it possible, I should be glad to see added to the curriculum a three months' course of experimental physics, given in summer, and specially adapted for intending students of medicine. Were attendance on such a course to be made compulsory, I should make it, in Aberdeen,

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a condition that the course be a summer one, and given in Marischal College. I could be no party to advising compulsory attendance of students of medicine on the course termed natural philosophy, in Aberdeen, in the Arts curriculum. But the great objection to any compulsory attendance on this subject is, that the medical student is already overburdened. To lay upon him another extensive science, by attendance and examination, within the curriculum, would be the last straw that breaks the camel's back. It might, however, be done by leaving him to choose any two of the three subjects of natural history, botany, or physics. But there we touch the pecuniary interests of professors of botany and natural history, unless some common fund system were adopted. The best method, probably, would be to continue to treat it as a branch of preliminary education; but for the requirement, 'Elements of Mechanics,' to substitute the requirement, 'Elements Physics.'

7803. Is that the only change you would suggest on the course of study?—On the preliminary examinations.

7804. Have you any suggestions to make as to the professional course of study?—In regard to our *professional examinations* (secs. x. to xv.) some changes are necessary. As these changes have already been accomplished for Edinburgh and Glasgow Universities, not much more need be said than to advise that our arrangements be assimilated to theirs. The first professional examination, which might with propriety be called the 'preliminary scientific' examination, should embrace botany, natural history, and chemistry, and should take place earlier than at present. With us the late period of the examination in natural history has proved an unfortunate arrangement, interfering seriously with professional work, and giving the student a distaste for a study which, when taken early, should be an interesting one. The term 'Zoology with Comparative Anatomy,' too, used for it with us, is unfortunate, as if more was meant than the comparative anatomy and physiology which are necessarily included in zoology, and this seemed to be a kind of reason for the examination in it not taking place early. This is avoided in Edinburgh University, in which this subject in the curriculum (Ord. No. 5, sec. v. 1) is designated 'Natural History, including Zoology;' and Glasgow University has recently followed the example of Edinburgh in transferring this subject to the first examination under the designation of 'Natural History.' The first examination might, I think, very well be allowed to take place after one winter and one summer session, but the recent rule adopted by Edinburgh and Glasgow Universities, allowing it to take place after one winter and two summer sessions, may be accepted as a compromise. The examination in the subject of *materia medica* is no less out of place with us in being included in the first examination. It should be transferred to the examination which takes place at the end of the third year, as in Edinburgh and Glasgow. The arrangement of the anatomical examination is now different in Edinburgh, Glasgow, and Aberdeen. In Edinburgh (Ord. No. 5, sec. viii.) there is one examination in anatomy, taking place at the end of the third year; in Aberdeen (Ord. No. 16, sec. x.) there is the examination in elementary anatomy at the end of the second year, and in advanced anatomy at the end of the third year; in Glasgow it was the same (Ord. No. 15, sec. x.) as in Aberdeen, but under the recent change of Ordinance by Glasgow University, the two examinations in anatomy are differently arranged. The first, termed the examination in anatomy, is allowed after two winter and three summer sessions, or after three winter and two summer sessions; and,

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not before the end of the third winter session, there is a final examination in regional anatomy. I have no hesitation in condemning the present plan in Aberdeen. It was enacted before I went there, and I have found that it tends to misdirect anatomical study. The word 'elementary' is quite unsuited to the condition in which a student's anatomical knowledge should be after two years of medical study, and I find it impossible to define what it means. The use of an examination in anatomy at the end of the second year is, that it prevents the student from neglecting in his earlier time a subject of such fundamental importance, and it enables a good student to feel confidence in his progress; but, at the same time, a student of medicine, who has also botany and natural history to take up during these two years, besides chemistry, anatomy, and physiology, cannot reasonably be expected to be ready to pass his final examination in anatomy at the end of the second year. Besides, I think that every student of medicine should continue his dissecting-room studies during the third winter session along with his surgical studies. The students of the Colleges of Surgeons have no examination in natural history, and very little in botany, and their chief examination in anatomy and the examination in physiology take place at the end of the second winter session, an examination in surgical anatomy taking place with the final examination for licence. Although these licensing bodies require four years of medical study, only three of these years are required to be spent at a medical school, so that their curriculum, as we in Scotland understand medical study, may be only a three years' one. My attention has long been directed to this question, and besides teaching the subject, I have been examiner in anatomy for many years at the Edinburgh College of Surgeons, and in our University, and I have acted for the General Medical Council as visitor of the examinations of other boards. My experience leads me to the conclusion that it would be well if a student could feel that he need not be in the anatomical lecture-room after his second winter, but that he should still, during the third winter, be in the dissecting-room. So far from this interfering with his surgical studies, I hold that the two should go on together, and, in saying so, I speak from former experience not merely in anatomy, but as an hospital surgeon in the Edinburgh Infirmary. It will not do to treat anatomy in medical education merely as a science; it is a subject of the most fundamental professional importance, in which it is essential that the student be well grounded, and for this he must go back again and again to the dissection of the healthy body, when he is engaged in the study of disease and operations. I fear that many teachers of medicine and surgery have no idea of the amount of time and toil it costs the teacher of anatomy to get the necessary knowledge of it into the head of the average student; and, on the other hand, we have teachers of the sciences, not themselves medical, who have no conception of what surgical anatomy is, and who are consequently unable to comprehend why the student should require to work so much at anatomy. Amid the many subjects in the medical examinations, the great and fundamental subjects are in danger of being swamped by the pressing on of the lesser ones. We must bear in mind that anatomy, surgery, and medicine are the great subjects—or, as Professor Syme used to express it, anatomy and the hospital; and if our students are hurried through these, we will be sending out men imperfectly grounded. And of anatomy it may be further said, that if he has not got it when a student, the medical practitioner has no opportunity of improving himself in it afterwards. It is very well in our colleagues in medicine and surgery to wish that the student could

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be handed entirely over to them after the second year, but they would not like to have him from us with his knowledge of the structure of the human body in an imperfect condition. I believe that all surgeons who have themselves been teachers of anatomy, and who therefore know what anatomical teaching is, will agree that in these views I am not exaggerating the importance of anatomy in medical education. I am of opinion, therefore, that if there is to be only one examination in anatomy, it cannot be before the end of the third winter, as now in Edinburgh University. Were it placed at the end of the second year, we should have either to lower the standard of examination, or to reject a large number of not undeserving students; and the result would be that the regulation would defeat itself, for the student would not face the examination till after the third winter. The one examination system commends itself by its simplicity, and it has the further recommendation of giving much less trouble to the examiners. But if it is placed after the third winter, the student will, during his third winter, be in the anatomical lecture-room and at his systematic anatomy books, when he ought to be in the dissecting-room and in the pathology-room. That is the dilemma under the one examination system, between having it at the end of the second year and at the end of the third year. But I think the system recently adopted by Glasgow University is the best one. It is founded on the recognition of attendance during a summer session before the first winter session, and this largely meets the difficulty, for it is becoming more and more common to begin medical study in summer, and the recommendation of it by the Universities would, no doubt, make it more general. From a third to a half of my students have been in the habit of beginning in summer, lately even more than a half. The student may thus be reasonably expected to be able to pass a satisfactory examination in scientific anatomy before the third winter. Indeed, I would consider that after three summer and two winter sessions, the student might be done with anatomy as far as the subject itself is concerned, but that I consider it of importance from the professional point of view that he should continue to pursue dissecting-room work in the third winter together with his hospital work. I would therefore prefer the new Glasgow method of allowing the examination in anatomy to take place after three summer and two winter sessions, followed by an examination in regional anatomy after the third winter session. The examination in anatomy would include the whole of anatomy, with the use of specimens and dissections, but of course dwelling less on regional anatomy. The examination in regional anatomy would dwell specially on the parts which have important practical relations. I mean an examination conducted by the examiners in anatomy. I was in doubt at one time whether microscopic anatomy—histology, as we term it—might not be left over to the later anatomical examination, but from experience of the proficiency of my students in that branch of the subject, I see no reason why it should not come in with the first anatomical examination. The arrangement of the professional examinations which I, therefore, advise would be: *First examination* (or 'preliminary scientific examination'), to be allowed to take place after one winter and two summer sessions—botany, natural history, and chemistry. *Second examination*—After two winter and three summer sessions, or after the third winter session—anatomy and physiology. *Third examination*—After the third winter session—regional anatomy, materia medica, and pathology. *Fourth examination*—After the fourth year of medical study—surgery and clinical surgery, practice of medicine and clinical medicine, midwifery, and medical jurisprudence. But I should like to add that I do not see why

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the subjects should be grouped in examinations in such a manner that the candidate who fails in one or more subjects must be re-examined in the other subjects in which he may have made a good appearance. It would be enough to enact the earliest time at which the examination in each subject will be allowed to take place, and in that case, adhering otherwise to the periods above-mentioned for the other subjects, I would allow the examination in botany and in natural history to take place earlier. With good methods of examination, there would be less cramming under such a system than under the present grouping system, and the not unfrequent hardship just alluded to would be removed. I do not think that any additional courses of instruction should be made compulsory in our medical curriculum, except a course of pathology, in which the Aberdeen curriculum is deficient as compared with those of Edinburgh and Glasgow. We have now-a-days supplementary practical courses in various branches, as in physiology, toxicology, pharmacy, etc., but I would not render such courses compulsory. When valuable, such instruction commends itself. Were it possible, I would rather cut down than extend the compulsory part of the medical curriculum, and would at least accompany any compulsory attendance on supplementary practical courses by a corresponding curtailment of the number of lectures in that subject. For the word 'lectures,' I suggest to substitute the word 'meetings,' so as to allow the teacher to adopt a more practical method than the lecture method when he found it desirable to do so. I think the Edinburgh University curriculum (Ord. No. 5, sec. v. 1) good, and would take it for Aberdeen; but besides substituting the word 'meetings' for 'lectures,' I would give a more modern definition of the course of pathology as 'a course of instruction in general and special pathological anatomy and physiology, or, in schools where there is no such course, a three months' course of lectures on morbid anatomy, together with six months' attendance at the post-mortem examinations in an hospital.' In regard to the conditions for the subsequent degree of M.D. (Ord. 16, sec. xviii.), I think it would be well to allow a modern language to be substituted for Greek. Also that the thesis should be required for this degree instead of for the degree of Bachelor of Medicine, a change which has already been made in Edinburgh and Glasgow Universities. The regulation in regard to the recognition of the instruction in certain schools of medicine (Ord. No. 16, sec. viii. 2 and 4) appears to me to require change. Under these rules the Queen's Colleges in Cork and Galway are recognised for three years, while such well-known schools as those of University College and King's College, and St. Bartholomew's, Guy's, and St. Thomas' Hospitals, London, and the College of Surgeons in Dublin, are recognised for one year only,—schools which are not only incomparably better than, but are not unlikely to outlive, the schools of Galway and Cork. These instances of the application of the principle of the distinction between hospital schools and so-called University schools, show that the principle must be unsound. Again, some of the provincial medical schools of England, as those of Manchester (Owens College), Liverpool, Bristol, Birmingham, are better schools than some of the 'hospital schools of London.' My opinion is, that after requiring, as at present, two years' attendance in a University, one of them in Aberdeen, it should be left to the University Court to recognise the schools at which attendance during the other two years may be given, and to withdraw recognition from them if it saw fit. I do not mean by this to interfere with, or in any way to restrict, the recognition by the University Court of extra-mural teachers, enacted in

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the succeeding clauses of the Ordinance (No. 16, sec. viii. 5 to 11 inclusive).

7805. Have you much extra-mural teaching in medicine in Aberdeen?—None whatever.

7806. There are no teachers in the town of Aberdeen at all?—There are supplementary lectures on certain special subjects, but not in the sense of being in rivalry with those given by the professors.

7807. That is to say, there are no lecturers outside the walls who undertake to instruct in any of the indispensable courses?—None.

7808. I suppose that arises from the town not being large enough to furnish such lecturers?—It arises partly, in comparison with Edinburgh, from this:—The Edinburgh extra-mural school exists independently of the University; it teaches for the Colleges of Physicians and Surgeons. That always keeps it in existence. In my experience, the students were mostly University students, but it is the fact of the school being there for those colleges that gives it a beginning.

7809. Were you a lecturer in the Edinburgh extra-academical school?—I was, for seventeen years. I may mention that I also conducted the anatomical class in the University in 1853–54, in the absence of Professor Goodsir from illness, and that the class that winter numbered about 450 pupils.

7810. There is a corresponding school of medicine in Glasgow—the Faculty of Physicians and Surgeons—does not that furnish lecturers?—There is the Andersonian Institution, which is a kind of corporate body; and I believe there is also a kind of extra-mural school now in connection with the old Infirmary.

7811. That last, however, is recent?—This year, I believe.

7812. *Mr. Campbell.*—The Andersonian is a large medical school?—I believe it is.

7813. *The Chairman.*—With regard to the Faculty of Arts, will you give us your opinion whether there ought to be any change in the curriculum or the regulations for graduation?—On that subject I should like to express myself very generally, as it is not my Faculty. The Commission has already heard very fully the opposite views of my various colleagues in that faculty, and I desire not to detain the Commission with more than an expression of my opinion between the contending parties. I have listened to all the discussions on the subject in our Senatus and General Council, and as an Edinburgh man, and therefore free from Aberdeen native prejudices, I think I am in a fair position to form an opinion. The opening up of the Arts education and degree is the great question of the day in our Universities, and I think those are right who hold the way to be, not to institute a new degree, but to allow the A.M. degree to be taken with alternatives. The proposal made lately in Aberdeen, to give a Science degree instead, was but a scarcely disguised sham. The great point in Aberdeen, and it is probably, though to a less extent, the same in the other three Universities, is that the bursaries are tied to the present Arts curriculum. Hence the persistency with which the party who are opposed to change have contended for leaving the A.M. degree untouched. The Commission has to realize the fact that over two-thirds of our Arts students are bursars; that the University, therefore, not only educates, but more or less supports, the great body of the Arts students, and that they hold the bursaries on condition of going through the whole of the Arts curriculum. If the Arts degree is left as at present, with the bursaries attached to it, the Commission and the University may save themselves the trouble of proposing any reform

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whatever in the Arts education in Aberdeen; but if the Arts degree is offered by alternative curricula, then the bursaries will be tenable by students following these alternative courses of study. The question of the revival of the B.A. degree is a minor one, and that degree may quite well go along with the method of alternative curricula, applying the method to both degrees, but it is well to bear in mind that while most of the bursaries are simply in Arts, many of them are expressly tied to the Master's degree. I have observed that there are three sources of the opposition among us to opening up the Arts degree. First, there is the ecclesiastical opposition. The present Arts curriculum is also the preparatory curriculum for the Church. Latin and Greek are quite as much professional subjects for the Church as anatomy and physiology are for medicine, and it is extremely convenient for the Theological Halls to have the whole of the Arts students so educated that they may, if they fancy it at the end of the Arts curriculum, find themselves ready to enter the Theological Halls. But the preposterous thing here is that, after all, the intending Divinity students form but a small proportion of the whole. While there are about 350 students in Arts, the students in Divinity are about 30 in number—just about as many as there are bursaries in Divinity; and adding 20 for the Free Church Theological Hall, there are not over 50 students of Divinity in Aberdeen. This is but a seventh part of the whole; but supposing, to be within the truth, that it were a fifth part, can it be for a moment defended that the curriculum of the whole of the Arts students of the University is to be determined by what is suitable for the Church? that the four-fifths are to be sacrificed to the one-fifth? The question might, I think, very well be raised, whether it is worth while maintaining a Divinity Faculty at all in our University after the decayed and apparently hopeless condition at which it has arrived; but to allow its interests to dominate the whole Arts education of the University is, I say, monstrous. Another class of opponents are the teachers of classics and some of those who have been educated under the old system. These gentlemen seem to believe in classics, with more or less mathematics, and in little else, as education. With them, English literature, modern languages and literature, mental science and natural science, are but worthless intruders. The whole success of the Aberdeen system and of Aberdeen men is attributed by them to the Latin and Greek, and the ruin of the University, and of Aberdeen students generally, is predicted unless the present A.M. curriculum is let alone. Now, I should like to mention to the Commission, as an outside observer of Aberdeen men and education, wherein, I think, lies the real source of what is excellent in the educational system of that part of Scotland. First of all, it must be borne in mind that the people along the east coast are a different race, with Scandinavian blood and larger heads, industrious, careful, and pushing, in marked contrast to the naturally lazy, superstitious, Gaelic-speaking race of the north-west coast. Then, as to the Aberdeen district, the schoolmasters in the three counties round Aberdeen are better paid, through the Milne and Dick bequests, and consequently the better teachers tend to gravitate there. But above all, there is the University bursary competition, to which a large number of youths come up every October, to compete for what will support them, or help to support them, for the next four years at the University, and the teachers all round are endeavouring to prepare their best pupils for this competition. To succeed, implies some ability and years of studious habit. The best are selected, and the unsuccessful go home and try to do better next year, or give up the idea of coming to the University. Thus the competition

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bursars—and they form two-thirds of the bursars—are already picked men to begin with. It is to the fact of there being a competition, not to the Latin and Greek, which have long formed its staple, that the result is due. Then, at college, if he turns idle, or misbehaves, or fails to pass his examinations, the bursar is in danger of losing his bursary; this applying to presentation as well as to competition bursars. The professors thus have him completely in hand, so that even apart from his natural tendency to go on working as before, he is obliged to do so. He has thus four years more of industrious and studious habit, and when he goes out into the world it is not the Latin and Greek which he has been obliged to swallow, but the continuance of these habits, added to his natural character, which get the Aberdonian on in life. What Aberdeen University needs is the Commission to come to its help and thrust on it the reform of its Arts curriculum against its will, just as the Universities Act and last Commission thrust the union of the colleges on Aberdeen against its will. Unless this is done, I see nothing in prospect for the Arts education in Aberdeen but gradual decay; but give the Aberdonian a more modern education, or at least the choice of it, under the same system of bursary competition and bursary tenure, and he will, I have no doubt, get on in life much better than he does, and the Arts classes will increase and show a new life. All this, I say, must be thrust on us, for we will never do it ourselves. Those whom I meet in University discussions in Aberdeen have little or no notion of University systems elsewhere. There is entire local self-satisfaction, and Marischal College and King's College of former days are regarded as models. An outside power alone can do for our University what it requires. The third, and practically the chief obstacle to opening up the Arts curriculum, that which completely blocks the way in the Senatus, is the pecuniary interests of professors, which may be affected by the change. This objection stands in the way of nearly all changes, and it is most desirable that some plan could be devised by which it may be met. There is, it seems to me, only one plan, that of having a common fund into which all the class fees of the faculty would go, each professor receiving from it such proportion, in addition to the endowment of his chair, as might be determined by Ordinance, and from time to time by the University Court. Against the objection to such a system, in its effect on individual energy, may be placed the greater efficiency arising from harmony and co-operation. The professor would stand in a more disinterested relation to the student, and between professors themselves it would tend greatly to sweeten the inside of college life. In classes in which the work is greater, a larger share of the common fund could be allotted to the professors of these departments. Such a system is not necessary with a professional curriculum in which there are no options, and it would not be so easy to apply it in the Faculty of Medicine, in which there is so great disparity in the amount of University work falling to the different chairs, though I may take it upon me to say that the Professors of Anatomy would only be too glad to have a share in anything like proportion to the work that falls to them. If there is to be a system of alternative curricula in Arts, or if any of the present courses are to be made optional, I see no other way than by having a common faculty fund; and the more I consider it, the more does it appear to me to be desirable that the same system be applied to all the faculties, each faculty having its own fund. It would require to be instituted by Ordinance, and the University Court could be required to reconsider the allocations at stated periods, say every three years.

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7814. *Dr. Muir.*—Do the conditions of the bursaries admit of such a change as you propose?—Yes. The bursaries are tied to the Arts education. If you instituted what I and others have proposed,—a system of bifurcation,—the bursaries would run along those different lines.

7815. *The Chairman.*—Have you thought out any scheme of alternatives?—I have not done so. I did not wish to go into those details. I concur generally in the views which I have no doubt have been stated to the Commission by my colleagues, Professors Bain and Fuller, who represent the more modern views in our Faculty of Arts.

7816. But have you in view the making of a portion of the present curriculum in Arts still compulsory, and initiating alternatives after certain classes have been passed? Or would you prefer that there should be an alternative from the very beginning?—I would exact a small minimum, what is called a 'small go,'—but the bursary competition is already a very good preliminary examination with us, and a good test of school education.

7817. And you would allow the student who had passed the bursary examination to choose his line for himself after that?—At once.

7818. Without making anything compulsory?—I think so.

7819. Would you make the examination for the bursary competition in that case just what it is at present?—I have a suggestion to make afterwards in connection with the bursary competition,—that it would require to be regulated by Ordinance.

7820. But what I rather meant to ask you was this: At present, as I understand, the subjects of examination in the bursary competition are Latin, Greek, and mathematics,—would you continue the same subjects?—I would not say that every one must have Greek before going in for a University degree.

7821. That is an important point.—I think they should all have some Latin.

7822. Would you confine the examination to Latin and mathematics, or would you substitute something else for Greek?—We have other subjects in it besides. We have English, and, among the alternative subjects, besides the Latin version and higher mathematics, we have German, French, chemistry, zoology, and botany; but the Latin version alone counts as much as the two modern languages, or as much as the three sciences together.

7823. But the necessary subjects are Latin, Greek, mathematics, and English literature?—Yes. Latin, Greek, and mathematics are the great things; and English comes in for a certain proportion of marks.

7824. Then you would be disposed to substitute something else for Greek, as I understand, in that examination?—Yes; German or French, or a science.

7825. In that case, would you make no provision for a young man receiving any instruction in Greek at any period of his career, either at school or college?—It depends on which curriculum he went in for.

7826. But you would not require it from every student?—Not from every one.

7827. It would not be required as a necessary part of his education at any stage of his education, either at school or college?—Not compulsory. Life is too short for everything.

7828. Would you give us your views generally on the subject of new

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degrees?—I think that a Bachelor of Science degree should be instituted in our University. I mean this entirely apart from the question of opening up the A.M. degree, or reviving the B.A. degree, for neither of which could it be a substitute. I mean a real B.Sc. degree, such as that which already exists in Edinburgh University. My object in this recommendation is mainly to offer a suitable preliminary training for students of medicine, and a University degree to mark it. At present no encouragement is given to intending students of medicine to pursue their preliminary studies in our University; but the number of our students of medicine is now so great, that I consider it to be both the duty and the interest of our University to offer such encouragement. The present Arts curriculum is quite unsuitable, both from the subjects which it enforces and the length of time which it implies. Only about one in ten of our students of medicine have taken the Arts degree; and I doubt whether the proportion, small as it is, is so great in Edinburgh or Glasgow. Even our small proportion is due to the bursaries having carried them on to the end of the Arts curriculum. Probably a larger number than that have begun in the Arts classes, and, after one or two years, have thrown up their bursaries and come over at once to medicine, rather than go on with studies which they felt to be a waste of their time. The intending student of medicine cannot afford more than two years for preliminary University study. Supposing him to begin at the age of sixteen, which is early enough, these two years, with the four in medicine, will make him twenty-two before he can have the pass medical degree, and twenty-one is the age at which that degree may be, and generally is, taken. A Science curriculum extending over two winter and two summer sessions is what will suit the intending student of medicine. Three winter sessions might be taken optionally; but if three winter sessions are made compulsory, it will practically shut out the medical student. But taking in the two summer sessions gets over the difficulty, the more so that some of the classes are already taught in the summer session. I can imagine no arrangement by which a greater improvement could be made on the preparatory studies of the student of medicine than by offering such a degree on a course of two winter and two summer sessions, and it would at the same time relieve the overburdened medical curriculum during the four subsequent years. Some modifications would, I think, require to be made on the present rules for the Edinburgh B.Sc., as given in the Calendar of the University. The time would suffice; the third year in Edinburgh being for the subsequent degree of Doctor of Science, with high examination in one branch. But the Edinburgh distinction between a general knowledge of all the sciences in a first examination, and a special knowledge in one group of them, is not, I think, a happy one for the Bachelor's degree. My view is that there should be simply a pass examination in each subject for the Bachelor's degree, and that the Doctor's degree is the one for which to demand high qualification in a natural group of subjects, or in one subject. For the kind of degree I mean, there would be a preliminary examination to test school education; and, as in Edinburgh, the medical preliminary examination would suit well for that. I would not compel attendance on mathematics, because that is a school subject, and should be well tested in the preliminary examination. I would require attendance on the courses of natural philosophy, natural history (geology as well as zoology), botany, and chemistry, and I feel inclined to recommend mental science,—the course of logic, I mean. I would allow the candidate to go up for examination in any of these subjects when he had completed the necessary attendance, as students in Arts now do, and I

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would not object to his postponing the examination in chemistry till after his first medical year. If he did not do so, I would examine him again in practical chemistry, or medical chemistry, in the medical examinations, as chemistry has important professional bearings. But he would, of course, be exempt from re-examination in botany and natural history. The examination, as now in Edinburgh, would be the same in each subject as it is for that subject in the Arts and Medical degree examinations. I do not mean that the B.Sc. degree should be imperative on students of medicine; but I believe that if it were offered and recommended by us, a large number of intending students of medicine would endeavour to take it. Those who desired to go on to the degree of Doctor of Science would require to take a further year of study, and to pass a high examination in some one subject or group of subjects. I would not include physiology in the B.Sc. curriculum or examination. We know what physiology means for the medical student, and it comes after the first year of his curriculum; but when the term physiology is used in general education, it is not easy to know what is meant. If it is a general knowledge of animal structure and function, then zoology supplies that. If it means what we understand by it in the medical classes, then a previous knowledge of anatomy is necessary; indeed, what often goes popularly by the name of physiology is much more anatomy than physiology. If introduced into the curriculum for the Science degree, the correct term would require to be anatomy and physiology; and the knowledge could only be had by attending the course of anatomy first, and then the course of physiology. I would, however, limit the Science curriculum to the general sciences. It seems to me that it is alike the duty and the interest of the Universities to make some definite arrangements for the education of the teaching profession. Teachers under the new system are greatly increased in number and improved in position in Scotland; and, as in the case of the medical profession, we can educate for England also. The Scotch Universities, between the Arts Faculty and the Science chairs included in the Medical Faculty, possess abundant means of giving both literary and scientific training to teachers; and if the Bachelor of Arts and Bachelor of Science degrees were within their reach, on a curriculum of two winter and two summer sessions, combined with training in a practising school outside the University, one or both of these degrees would probably be much sought after by intending teachers. As it is important for teachers to possess an acquaintance with the structure and functions of the human body, in application to the laws of health, the subjects of anatomy and physiology might be allowed to be taken optionally in their curriculum instead of zoology. I do not think it necessary or advisable to institute a separate Faculty of Science. Such a faculty would include the Professors of Mathematics, Natural Philosophy, Chemistry, Natural History, Botany, Anatomy, and Physiology, but I do not see what would be gained by it. In the Universities of Germany, although the Professors in Arts and in the Sciences are more numerous than in the Scotch Universities, there is not a separate Faculty of Science, but the Faculty of Arts (or Philosophy, as it is called) always includes the Professors of Geology, Chemistry, Botany, and Zoology, who are in that faculty exclusively, not in the Faculty of Medicine. I think that the object would be sufficiently gained if the Professors of Chemistry and Botany were included in the Faculty of Arts as well as in the Faculty of Medicine, as the Professor of Natural History already is in Aberdeen.

7829. Then I understand from what you have said that you are desirous of introducing a degree of B.A. as well as a degree of B.Sc.?—Yes.

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7830. For what class would you think the degree of B.A. desirable, beyond the teachers whom you have mentioned?—It might do, instead of a B.Sc. degree, for intending students of medicine, though I believe they would prefer their degree to be called a science degree; but I think it important mainly for intending teachers, and those, belonging to various classes, whose fathers wished them to take two years at the University, but did not wish them to stay for four years.

7831. *Dr. Muir.*—And you propose the B.Sc. degree for intending medical students?—Not to be confined to them, but they would be the persons who would take it largely.

7832. *The Chairman.*—With regard to your equipment of professorships in Aberdeen, do you think there are any new professorships or lectureships required?—Lectureships on such special portions of surgery and medicine as diseases of the eye, of the ear, of the skin, of the teeth, exist in most medical schools; but I do not think any action by the Commission necessary for such lectureships. They relate to specialties which medical men who have, or desire to have, a reputation in them, take up with a view to practice, which is their reward. No endowment is required for such lectureships. Extra-mural teaching offers sufficient opportunity, but in Aberdeen we have granted the use of a room in the University for two such courses,—one on ophthalmology, and one on diseases of the teeth,—and would, I daresay, be very willing to do so for other such courses if gentlemen specially qualified were to apply. Nothing more is needed, and I may add that such courses are generally much more useful when given at hospitals and dispensaries, than within college walls. But we are greatly in need of a Professorship of Pathology. To the statement made to the Commission by our Medical Faculty, of date 2d November, in regard to this want in Aberdeen, I may add that Edinburgh University has a chair of General Pathology, and a course of one hundred lectures in the curriculum (Ord. No. 5); and that Glasgow has a course of fifty lectures in the curriculum (Ord. No. 15), and has now a Professor of Clinical Surgery, and a Professor of Clinical Medicine, besides the Professors of Surgery and Practice of Medicine. In Aberdeen we have neither professor nor a course of pathology in the curriculum. The students are left to pick it up voluntarily from the pathologist in the Infirmary, to whom we also give the name of Lecturer on Pathology in the University; but as the University has not thought it worth while to require the course, most students naturally think it cannot be worth attending. In the Universities of Germany there is always a Professorship of Pathology. Next to anatomy it is the most fundamental subject in their medical schools, and the professor devotes his time to the work of the chair in his lecture-room and laboratory. Pathological histology has made enormous strides in the last quarter of a century, and has, I may say, entirely revolutionized the practice of medicine that I was taught even by the distinguished Alison. So important is that subject now in medicine, that, if required to choose, I would rather want a chair of Practice of Medicine than a chair of Pathology, for clinical instruction might make up for the want of the former. Had we Professors of Clinical Medicine and Clinical Surgery in Aberdeen, then it might be said that our Professors of Medicine and Surgery could sufficiently take up pathology; but our Professors of Medicine and Surgery are, at the hospital, virtually also clinical professors, and it is impossible that they can do justice to all the three subjects. As one who has a deep interest in the welfare of the Aberdeen medical school, and who has made himself acquainted with the system of the medical schools of various countries,

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I make an earnest appeal to the Commission to give us a chair of Pathology. A mere lectureship will not accomplish the object in Aberdeen. It must, with us, be in the hands of a man occupying the same rank as the other professors. An endowment the same as that of the chairs of Medicine and Surgery might suffice to start the professorship, but it is very desirable that the endowment be such as to enable the professor to do without practice. That would require an endowment of £400, and the class fees would probably amount to £300 under a professor who threw himself wholly into his subject. We cannot at present promise the professor the position of pathologist to the Infirmary, but I believe there will be no difficulty in Aberdeen on that score. Our Medical Faculty, in the statement referred to, insist on the importance of defining the teaching of the professor. That is very necessary. Pathological anatomy, especially pathological histology, would form the chief part of his teaching; but the term pathological anatomy is too limited, as it deals with visible results, but not with causes or forces. He has diseased function as well as diseased structure to treat of. The name of the course in the new German University of Strassburg, which I lately visited, is *Allgemeine pathologische Anatomie und Physiologie*. The distinguished von Recklinghausen is the Professor of Pathology; and I may just mention here, to show what importance the Germans attach to the encouragement of science, that in Strassburg, a smaller town than Aberdeen, and with, as yet, a school of medicine not nearly so large as that of Aberdeen University, the German Government is at present putting up a building for pathology at the cost of £20,000, and is doing the same for anatomy, of which my distinguished friend, Waldeyer, is professor. The chair in Edinburgh is called General Pathology, and may be said to have had quite an accidental origin. Very opposite opinions were held, when I was a student in Edinburgh, as to the utility of the chair. When I attended the course, it really was not of much value, mainly from the method of teaching adopted by the professor, who sat at his desk reading a manuscript. But pathological anatomy has made enormous strides since that time, and by having this new life infused into it, the course of pathology in Edinburgh has, in the hands of its present able professor, become one of great value to the Edinburgh school. The term 'General Pathology,' as used by the Germans, includes the whole of pathology, special as well as general, and they use this term in contrast to the term for their course of practice of medicine, which is called special pathology and therapeutics. The definition, therefore, proposed, in the statement by our Medical Faculty, for the course in Aberdeen,—'Pathology, a course of instruction in general and special pathological anatomy and physiology,'—I think should be the one adopted. As to the number of lectures in the course, I would say that one hundred is too many for mere lectures. I would have a course of one hundred meetings, about half for lecture and half for demonstration. The professor would also have a practical or laboratory course, in which the student might pursue the study of pathological histology and pathological chemistry, practically, but that need not be placed in the curriculum.

7833. Does that exhaust what you have to say as to additions to the professoriate in the Medical Faculty?—Yes.

7834. Then have you any suggestions to make with regard to the Faculty of Arts?—To the Faculty of Arts in Aberdeen I think there should be added a separate chair of English Language and Literature; if possible, a chair of Modern Languages; and a chair for the Theory and

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Practice of Education, which Edinburgh and St. Andrews already have, seems essential if the Scotch Universities are to attend to the education of teachers. I do not know of any one thing which would do more good in our University, and to the general education of the north of Scotland, than giving the English language and literature the status of a separate professorship, as it has in Edinburgh and Glasgow Universities. It is not fair either to the subject or to the professor to have it taught as a mere subordinate subject in connection with the Logic chair. Although it is at present in the hands of a very able professor, I believe that he agrees with all who appreciate the value of English literature in education, in the opinion that it is impossible to do justice to the subject unless it be raised to the rank of a separate professorship. Whatever the University treats as subordinate, the student regards as unimportant. The teachers in the north of Scotland follow the example, and the result is that the English language and English literature have as yet a very scanty place in the schools of the north of Scotland. The class at present meets only three hours a week, and the fee is a guinea. With an endowment similar to that of Edinburgh and Glasgow (at present £200, by Parliamentary vote), and the ordinary University class fee, the professor would be in a good position. The class would be a large one. I do not see the objection to the institution of a chair of Modern Languages on the ground that there ought to be at least two. My idea would be, not to have a professor teaching the elements, but rather to have a course in which the modern languages would be handled comparatively, and in which their literature would be gone into. The professor might also have separate classes for French and German. As to the question of having geology and zoology represented by separate professorships, as is now the case in Edinburgh University, I regard that merely as a question of the money. If the additional endowment can be had, there can be no doubt of the desirability of the separation. Botany has always had a separate chair to itself, because, although it is now a pure science, it was originally associated with drugs. In the Universities of Germany, there is always a Professor of Geology, including Mineralogy, and a Professor of Zoology. Even in the smallest of the German Universities which I have visited it is so. The relation between geology and zoology is not closer than that between some other subjects which are represented by separate chairs in the Scotch Universities; as, for instance, Botany and Zoology, Botany and Geology, Physiology and Chemistry. If we are to recognise the view that it is the duty of a professor to advance his science and be an authority in it, not merely a repeater in the lecture-room, it cannot be carried out with one professor representing two such extensive sciences as geology and zoology. And it is not merely their extent, their methods and instruments are different: the one is the man of the hammer, among stones, rocks, and fields; the other must be at home in the use of the dissecting-knife and the microscope; and if the same professor has both subjects, one or other will be in abeyance, possibly both. There is perhaps not more than one man in this country who can be called an authority in both, but I doubt whether Professor Huxley himself would care to have mineralogy to teach. Giving an assistant to the professor will not mend what is really wanting, for, if the two sciences are too much for a professor, they must be still more so for a changing assistant. A lecturer to undertake one of them would be better than no change; but a man who is an authority in the subject could not be expected except as professor, and there is no reason, except the money one, why it should

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not be a professor. But I fear that I stand so nearly alone in Aberdeen in advocating this change, that there is little or no hope of success in this generation. I ought to add, however, that I do not for a moment wish to be understood as urging this separation as of nearly the same importance to us in the North as the institution of a separate professorship of English language and literature.

7835. *Dr. Muir.*—Do you think that a Professor of Modern Languages would be attended by any considerable number of students if he were to go beyond the mere teaching of languages practically, and were to go back in the history of the languages and teach them philologically and scientifically?—With a curriculum permitting alternatives, I have no doubt a considerable number would attend such a course. I should object to the Professor of Modern Languages teaching the elements, just as I would object to the Professor of Latin or Greek teaching the elements in the University.

7836. *The Chairman.*—Would you have the Professor of Modern Languages to teach the students scientifically, and also the literature?—Yes.

7837. With regard to the provision of assistance and apparatus, have you any suggestions to offer?—For the anatomical department no provision is made by Ordinance for apparatus or other class expenses, and only one assistant is provided by Ordinance (Ord. No. 6), at a salary of £100, from Parliamentary grant. The Senatus being satisfied that the anatomy class could not be conducted satisfactorily with one assistant, gave, two years ago, a grant from the general University fund for a second anatomical assistant. The grant was only £45. I made it up to £60, but could get no one to give his services for that sum, and even now, that I am making it up to the rate of £80, I had difficulty in getting a qualified man, and could get him only for part of the year. The sums for both of my assistants are inadequate. Less than £100 is not likely to secure one who is fit for the post, and £100 will not induce him to remain even a second year. Some professors have complained that their assistant did not remain above two or three years. My assistant now leaves every year. Since I became professor in Aberdeen, now thirteen years ago, I find by the University Calendar that, in the classes in which the assistant receives the same annual salary (£100) as in my class, there have been (including the present or fourteenth year now begun), in mathematics, four changes—that is, four different assistants; in chemistry, five; in Latin, six; in natural philosophy, seven; in Greek, eight; in anatomy, ten changes. For the last six years my assistant has left every year, although in every case I offered re-appointment, and although we parted with mutual regret. This is extremely unsatisfactory, for he leaves me just after I have got him well trained to the work. It is simply that the money is not enough to retain a man who is qualified for the position. The kind of men who are qualified to act as anatomy assistants have no difficulty in getting assistantships to practitioners in England, in which they receive £60 or £70 and board, or, not unfrequently, a house-surgeoncy to an hospital, in which they receive £100 and board; and these situations lead more directly to professional position than an anatomical assistantship does, for which, besides, comparatively few men are qualified. What increases the difficulty in obtaining and retaining a qualified anatomical assistant, as compared, for instance, with the assistants in the Arts classes, is not merely that he is required for the summer as well as for the winter session, in fact for ten months in the year, but much more because his whole day is required, cutting him off

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from any other occupation. I cannot conduct the anatomical class satisfactorily without two qualified assistants. I do not mean as substitutes for me, for I am there the whole day engaged in teaching, and have, even with two assistants working under me, no time at all for scientific research during the session. Besides the assistance necessary for preparing the daily fresh dissections and numerous illustrations required in anatomical teaching in the lecture-room, I have from 150 to 200 pupils working in the practical rooms daily, each coming in for two or three hours, and requiring individual instruction at the dissecting table. The amount of teaching required in the anatomical department, therefore, far exceeds that in any other department of the medical school, or of the University. Two assistants are provided by Ordinance for the Professors of Chemistry in Edinburgh, Glasgow, and Aberdeen (Ord. Nos. 23, 22, and 6). I have no doubt that the Professor of Chemistry requires two assistants; but as the amount of teaching required in the anatomical department far exceeds that of the chemical department, I am unable to discover any reason why at least as much assistance should not be provided for the anatomical as for the chemical department. What I suggest for the anatomical department is, that the grant for the second assistant (or 'assistant-demonstrator') be fixed by Ordinance at £100, and that the salary of the chief assistant (or 'demonstrator') be raised to £125. If I had a sum of £200 divisible between the two assistants, the junior might have £80 and the senior £120, but I fear that less than £100 will not secure a suitable anatomical assistant, and I cannot expect the £125 to do more than induce him to remain with me a second year. In regard to *apparatus and other class expenses*, there is for the anatomical class in Glasgow (Ord. No. 22, sec. xvii.) a grant of £200 from the General University Fund 'towards defraying the salary of an assistant or demonstrator, and the class expenses of the professorship;' and there is the same for anatomy in Edinburgh (Ord. No. 23, sec. xxiv.); but there is no provision by Ordinance for class expenses for the anatomy class in Aberdeen. Besides an ordinary grant of £50, by vote of Senatus from the General University Fund, I have also had for some years an extra grant of £50 for the anatomy class. This year the ordinary grant is raised to £80, and there is an extra grant of £50. The expenses of the anatomy class, I may mention, were last year £140. The materials which are now used for anatomical purposes have very considerably increased the expenses. It is very unsatisfactory to me to be in doubt each year whether the Senatus will vote me an extra grant. The grant, in fact, depends very much on the accident of who are present when the votes are taken, and meanwhile the outlay has been incurred. There is for the chemistry class a grant of £100, by Ordinance (No. 6), for class expenses. It should be not less for the anatomy class. I think I generally could manage with £100, and would at least be willing to take my chance of an extra grant from the Senatus for anything over that. The form in which I suggest it is the same as that for the anatomy class in Glasgow and Edinburgh, viz. a sum of £200 from the General University Fund for the salary of an assistant-demonstrator, and for the class expenses of the professorship. I should like to say a word for the provision of assistance and class expenses for some of the other departments in the Medical Faculty. I beg to hand in, at the request of the Professor of Chemistry, a statement by him of the wants of the chemical department:—'In reference to Ordinance No. 6, Aberdeen No. 2, sec. v., wherein it states that "to the Professorship of Chemistry there shall be attached a teaching assistant and a laboratory attendant, who shall receive respectively the

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sums of £100 and £50 a year, portions of the sums heretofore annually voted by Parliament to the Professorship of Medicine and Chemistry in King's College, and the Professorship of Chemistry in Marischal College," the Professor of Chemistry desires respectfully but earnestly to submit that these sums should be increased; also that the aggregate sum payable to the assistant and the attendant be left to the discretion of the professor to divide in such a manner as he may think most expedient, and as best suited to the position of each. The Professor of Chemistry would also humbly submit that the sum of £100, allowed "to provide materials, and meet other class expenses," is not sufficient for the purpose of efficiently conducting a fully illustrated course of lectures as required during a winter session, together with a proper course of practical instruction in the summer. The experience of some years past has shown that nearly the whole amount of the £100 has been spent upon perishable material, leaving little or nothing for the purpose of establishing permanent apparatus.—James S. Brazier, Professor of Chemistry, 29th November 1876.' I think there can be no doubt of the reasonableness of this application. The sum of £50 is quite inadequate to secure the services of a suitable second chemical assistant; and as the money for both assistants comes from the same source, the proposal to have the power to divide it between the two in varying proportions is a very good one for regulating promotion. There could be no objection to requiring the sanction of the Senatus or University Court to the proportions allocated each year between the two assistants. I should be glad to have the same power if the funds for the two anatomy assistants did not come from different sources. The sum of £100 allowed by Ordinance for class expenses in chemistry has for some years had to be supplemented by a grant by the Senatus from the General University Fund, and I think that, in the event of the aggregate sum for two assistants being raised to £200, the Professor of Chemistry might, as I have just said for the Professor of Anatomy, take his chance of a vote by the Senatus for any grant that may be required for class expenses beyond the £100 secured by Ordinance. I think it of primary importance that the three departments of Chemistry, Anatomy, and Natural Philosophy be well provided for in regard to class expenses and assistance. I think that a sum of £100 should be secured by Ordinance for class expenses for each of them, and that the chemical and anatomical departments should have sufficient provision made for two qualified assistants in each. One assistant should be enough in Aberdeen for natural philosophy, as the amount of laboratory teaching is not nearly so great as in the other two subjects. It is their having so large a number of students of medicine to instruct practically which throws so much more laboratory teaching on the chemical and anatomical departments, and renders an additional assistant necessary. Our Medical Faculty, in its report of 2d November, transmitted to the Commission, has expressed the opinion that, besides increasing the remuneration attached to existing assistantships, provision should be made for assistants in those departments in which they are not provided by Ordinance; but we did not go into details. The difference in the amount and kind of work connected with the various chairs renders the question of grants for assistance and class expenses somewhat complicated. I think that all professors should have an assistant of some kind. The sum required for an assistant depends primarily on whether the duties take up his whole time, or leave him in part free for professional or other occupation; and the amount and cost of materials required varies much in the several classes. In our Ordinance (No. 6) provision is made for

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class expenses, by Parliamentary vote, for the classes of medical jurisprudence (£35) and *materia medica* (£50). We have never understood why these two classes in particular had been so fortunate in being secured by Parliamentary vote, but we are thankful for it, and consider the grants fair. But the assistants in those two classes have only £25 each. The Professor of *Materia Medica* has been before the Commission, and will no doubt have spoken of this. The Professor of Medical Jurisprudence authorizes me to say that he is of my opinion that the assistant's salary should be £50 instead of £25. There is a good deal of laboratory work in toxicology in connection with this chair, and it is both delicate and important work. Our Professor of Botany will, I believe, be satisfied if he receives a grant of £25 for assistant and class expenses, besides any grant for the botanical museum. I think the Professors of Pathology, Physiology, and Natural History should have a grant of £50 each for an assistant. In these classes assistance is not required during the whole day in a school like that of Aberdeen, and I think that it is of more importance for our school to have the professors in these branches well endowed, so that they may be able to give themselves to their departments, than to be giving large sums for assistants. With reference to assistants in the three practical chairs,—Medicine, Surgery, and Midwifery,—it is to be borne in mind that the practical work in these departments is, or should be, mostly at the hospital, and that the hospital clerks are their assistants. At the same time I think that there should be a grant for a University assistant in each of these three departments. The sums for class expenses for the chairs of Pathology, Physiology, Natural History, Practice of Medicine, and Midwifery, I think may be left to be voted from the General University Fund from time to time, as the amount required is so uncertain, and varies with the activity of the professor for the time being; but as there is a good deal of regular outlay in connection with the Surgery class, it might be well to give a grant of £50 by Ordinance for that class. In regard to the source of these funds, I think that assistants should, as far as possible, be provided for by Parliamentary grants. When I come to the subject of the finances of the University, I shall give my reasons for thinking that the charge for class expenses in the Medical Faculty, not already provided for, may be placed against the General University Fund.

7838. Are you in favour of any change in the University sessions?—In regard to the medical classes, it has been suggested that instead of the five months' winter session, and the three months' summer session, there should be two sessions of four months' each. On looking over the dates of the sessions in the Universities of Germany, I find that, in all the faculties, the winter session generally extends from exactly the middle of October to the middle of March; the summer session from the middle of April to the middle of August. There is thus an interval of a month between a five months' and a four months' session, followed by a two months' autumn holiday. Some begin later in October, and have but a fortnight's interval in April. Moreover, the courses are generally so arranged as to go on continuously, one part being taken in the winter, the other in the summer session, the professors in all the four faculties teaching in both sessions. Even were it desirable to alter the present medical sessions, there is a fatal objection to our Scotch Universities alone doing so, as we cannot change the regulations of the London boards, for which a good many English students pursue their studies in Scotland, especially in Edinburgh. In Germany such arrangements are

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easy, as all the schools are Universities, and under State direction. A change in the length and proportion of our sessions would imply a great change in the number and arrangement of the courses, and in the mode of certifying them, and would besides imply that all should attend in summer as well as in winter. All this could be effected only through the joint action of the various licensing bodies in England, Scotland, and Ireland, acting under the direction of the Medical Council. I think it would be an improvement to have two four months' sessions, some courses running on in both sessions, some for four months only; but I would not attempt this by the isolated action of our Universities. The winter medical session in London begins on 1st October, and is a month longer than in Scotland, though the lectures are not so numerous. I would be glad to exchange July for October, or to divide these months, beginning in the middle of October, and ending in the middle of July. The Christmas holidays would come in better as a rest if we began earlier than we do. This would require the joint action of the four Universities, but the Universities could agree to do this much at any time without calling in the help of a Commission. I ought to mention that although we seem to have the month of April for rest between our winter and summer sessions, it is nearly all occupied with the examinations for the degree; and again, after the summer session is over, it is generally the end of the first week of August till our summer medical examinations are over. I am strongly of opinion that there should be a summer session in Arts. Those who are opposed to it are bound to explain why it should be so all over the Continent and not in our country. Scotland is not the poor country it once was, and if so poor a country as Switzerland can do it, why not Scotland. If the objection is alleged in the interest of students who support themselves by teaching, the fact is that it is in town and during session that these students have the best opportunities of getting teaching to do. The details admit quite well of being arranged if the Arts professors were willing. The full curriculum would have to be so arranged that it could be taken in three winter and three summer sessions. The bursaries could be made tenable for three years, increased in value, and proportionally diminished in number; or the fourth year of the bursary could be made payable optionally in the third summer session or in the fourth winter session. I maintain that it is a monstrous thing that the whole general education of the University should be suspended for seven months in the year. It is bad for the habits as well as for the progress of the students, for most of them really do not do regular study during the long recess, unless their parents can afford to engage tutors for them. Nor do I think it a grievance for professors to have to teach in the summer session also. Some of us in the Medical Faculty do so. The teaching duties of most professors are not particularly heavy, and a three months' holiday in autumn is very good. Judges, sheriffs, teachers in schools, and nearly all persons leading useful lives, have no such holiday or so easy work. Even were there no compulsory classes in summer, I hold that professors should be on the spot, ready to teach those who wish to attend. The objection that it would interfere with study and research is a mistake. Professors in Germany have but a two months' holiday in autumn, and it is to them that we owe the fruits of study and research more than to any men. In fact, the Scotch professor does not yet consider research to be one of his duties; with some marked exceptions, his half-year's holiday produces nothing. It is a change, however, which will have to be thrust on our Arts professors. They will never do it voluntarily.

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7839. Have you any suggestions to make on the subject of the recognition of extra-mural teaching?—I do not agree with the argument regarding, I may say against, permitting extra-mural teaching in the printed report of our Senatus of 16th October, transmitted to the Commission. My colleagues have not had the practical experience of the system that I have. I am myself a living example of the error of the first argument advanced, that in subjects requiring apparatus and specimens, no private lecturer could cope with the professor. I did so in Edinburgh, and successfully. With some 600 students of medicine in the school there was room for a lecturer, although the professor was both distinguished and active; and, after some years of devotion to the work, and certainly of small returns, I came to have a large class, mainly composed of University students, who took part of their anatomical education with me. It is, of course, a more serious thing to begin with subjects requiring laboratories, specimens, and the like; but the lecturer must begin in a small way, and extend his establishment if he succeeds. In regard to the second objection stated by our Senatus, there would be no difficulty in extra-mural lecturers finding rooms quite near the college buildings either in Aberdeen or in Old Aberdeen, if the demand should arise; and in regard to the third objection, I believe that my colleagues and Scotch professors generally are under unnecessary alarm. The prospects of extra-mural lecturing in Aberdeen generally, and in Arts even in Edinburgh, are so discouraging that it would require a strong case before a lecturer could succeed. It could only be against a very inefficient professor, and that surely is a recommendation, not an objection, to permitting an extra-mural rival. I maintain that the experience of the German Universities, and of the Edinburgh University in its medical department, amply answers the argument that the chairs would suffer. The chairs are not less eagerly sought after, the attendance is not less; on the contrary, the increased activity naturally brings increased prestige to the chairs, and increased numbers to the school. The fact is, that the mere existence of a rule permitting extra-mural teaching is almost enough to produce the beneficial results, even although no teachers have begun. The mere liability to it is a stimulus to the professor. Much ingenuity has been spent in suggesting means of getting professors to retire at a certain age, and it is one of the powers of the University Court, under clause xii. of the Universities Act, to require a professor to retire from his office 'upon sufficient cause shown, and after due investigation.' There have been, within my knowledge, in each of the Universities, cases of most serious inefficiency, some of them cases of scandalous inefficiency, but the University Courts did not interfere. I know of no way of getting rid of inefficient professors except by permitting extra-mural teaching. Again, we hear of proposals to endow research. I am one of those who think that teaching and research should not be dissociated, in the interest of both. That question, like most other University questions that we are still discussing in this country, has, I think, been settled by the German Universities, in which both teaching and research are combined in the highest degree. My remedy for the neglect of research is to render the professor liable to extra-mural rivalry. The young man who looks forward to a chair engages in research to make a name, and when he is professor he must go on working to maintain that name. It is well to provide us with endowments and with assistants, but provision must also be made for our activity. The subject has long occupied my attention, and my opinion is that a professor

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should be so placed that, partly from endowment, partly from class fees, he will be well remunerated if he is active, but that he shall suffer, or be liable to suffer, if he grows lazy. I would have no hesitation in at once opening the teaching in all the faculties. As to the conditions, the regulations in the Ordinances for medical graduation (Ord. Nos. 8, 15, and 16) would suffice, though I have no objections to go further than allowing a fourth of the classes to be so attended. The regulation requiring the lecturer to take the same fee as the professor is a right one. It is the same in Germany, and I can say that in Edinburgh I used to be only too happy to have the higher fee. But the rule (Ord. No. 8 (6), and Ord. Nos. 15 and 16 (7)) requiring the student's name to be entered in a special book is, I think, both unnecessary and offensive. It was what in Edinburgh we used to call being in the professor's black book. All students attending extra-mural lecturers, for graduation, should be required to matriculate in the usual way, and it is not desirable that professors should have the means of finding out which of the students are attending extra-mural lecturers.

7840. Would you favour us with your views as to the existing system of presenting and electing office-bearers in the University?—As we are all agreed, both within and without the Senatus, that the mode of electing the Lord Rector in Aberdeen should be changed to that by general poll of the students, I need not detain the Commission with arguments for the change. I think it would be often enough if the election of Rector came once in four years, instead of once in three years. All ordinary students would thus have the opportunity of taking part once in the election of a Rector. I have no sympathy at all with the wish of some, that the election of the Rector should be taken from the students. The objection that it interferes with the studies is not worth much, for the election is now early in the session and the contest is short, and need not occur oftener than once in four years; and any such disadvantage is, I think, more than compensated by the training it gives the student in the exercise of his judgment in the affairs of the University. Great importance is attached to the rectorial election in Aberdeen; our students go about it very thoughtfully, and have endeavoured to select not merely show-Rectors, but men who were likely to take an interest in the affairs of the University, and among those who have done so have notably been Mr. Grant Duff and Professor Huxley. One great advantage, among others, of this election being in the hands of the students, is that they are not much influenced by sectarian or by local or other party feelings, but go for a man of eminence. Besides, viewed in its results in Aberdeen, the members who have been sent into our Court by the students will compare very favourably indeed with those who have been sent in from the other electing sources. Indeed, with us, the Rectors and their esteemed assessor, who has enjoyed the confidence of all our Rectors,—I mean Mr. Webster,—have always been regarded as the best part of our University Court. Something will require to be done for Aberdeen in regard to the examiners in medicine in addition to the professors. The case is so fully gone into in the two printed papers of the Medical Faculty (of 20th March 1875, and 2d March 1876), transmitted to the Commission by the Senatus with the report of the Medical Faculty of 2d November, that it is quite unnecessary for me to detain the Commission with more than an opinion. I do not see how we can do with fewer than seven examiners, and as we acknowledge fully the force of the argument in favour of these assessor-examiners

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being persons who are not acquainted with the students, and who are specially qualified, we feel the necessity of having the remuneration such that men from other schools can afford to come. From the increase of our medical school, since the time of the last Commission, the number of candidates to be examined is about the same as in Glasgow, and the distance to Aberdeen is much greater. The remuneration in Glasgow is £40, in Aberdeen £30. I think £30 or £40 not amiss for a resident examiner, but it is reasonable that there should be some way of supplementing a non-resident examiner who has to leave home and travel. What I would suggest is seven examiners at £30 or £40, and an obligation laid by Ordinance on the University to increase the remuneration of examiners from a distance to say £50; and also that the University should receive power, if it saw fit, to increase the number of examiners beyond seven, and to provide for their remuneration. Supposing five of the seven examiners to be from other schools, this would entail a charge of either £50 or £100 on the University. We cannot afford much money for payment of examiners, and there need be no fear of the Senatus giving money for this purpose if it can help. I believe, however, that the best system would be to have the same assessor-examiners in medicine acting for the four Universities, examining with the local professors at the seat of each University. In that case they would have to be appointed by the State, and this is the more reasonable as the degree in medicine is also a qualification to practice. As the security that our examinations are sufficient is sought in the interest of the public, it would also seem reasonable that the State should bear the expense. One examiner in each subject would suffice, and the State already pays £640 a year for medical examiners in the three Universities. Such an arrangement, I believe, would satisfy what is good in the demand for a joint medical board, as far as the Universities are concerned, and would do so with safety to the individuality and the teaching of each University. I have been engaged for many years in conferences and discussions about joint boards and the best methods of correcting the weak points of our system, and I have a strong opinion that the plan just mentioned is the best solution of a somewhat complicated question. If we do not adopt it, a day may come when some arrangement will be thrust on our Scotch Universities which will not be for their good. The plan I propose is suggested not merely as a method of meeting an outside pressure, but as in itself the best method for our Universities. I believe that in Aberdeen we would be willing to have such an arrangement if the other Universities are willing. The mode of appointing the professors in our Universities, I think, requires serious reconsideration, and it is a question of vital importance. One curatorial Court for the four Universities has been suggested by some. If that plan were thought of, our experience in Aberdeen would lead us to place most confidence in the Rectors. An objection to the Chancellors exercising that duty is that they are permanent, and an elector is apt to cling to a candidate whom he has unsuccessfully supported on a previous occasion. If the patronage of chairs is to be continued in separate Courts for each University, some changes are, I think, necessary. I am aware of the causes which occasioned the formation of a curatorial Court in Edinburgh, in addition to the ordinary University Court. But apart from that, an evident objection to the ordinary University Court being entrusted with the patronage of chairs is the fact that two members of Senatus sit in it. In the provincial University Courts these mem-

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bers at present vote in the election of professors. This is but a remnant of what was the worst form of patronage, that by the *Senatus*, under the old system which was supposed to have been removed by the Universities Act. But were this element removed, by an enactment that no member of *Senatus* shall act as a member of the University Court when the Court discharges the duty of electing to professorial chairs, and the place of these two members supplied, for the curatorial function only, by two curators, either elected by the University Court, or appointed by the Crown, for the current four years, I believe that such a Court would be the best local Court obtainable for each University. In regard to that part of the patronage exercised by the Crown, on the recommendation of the Government of the day, the evident objection is its political character, and also the risk that, from his multitudinous duties as well as political surroundings, the real merits of the case may not reach the Home Secretary. Had we, as in Germany, a Minister of Public Instruction, I would trust that form of patronage more than any other. As it is, one would expect that the responsibility of recommending to the Crown would be best discharged, not by the Home Secretary, but by the member of Government who is most concerned in administering the affairs of education. Even with all its drawbacks, I am not sure, from what I have observed, but that the present system of patronage by the Crown is safer for the provincial Universities than patronage by their University Courts; but I would reverse that opinion if the University Courts were modified for patronage in the way just suggested, and the more so if the Courts were increased in number by the addition of one or two members. The suggestion that the patrons should in all cases require a report to be made to them on the merits of the candidates is well worthy of consideration. The referees would require to be persons of standing and unconnected with the *Senatus*. This is probably done at present to some extent by the ministers of the Crown, but it is done in private, and the persons consulted are apt to be political friends, each advising without consulting the other or being required to give the grounds of their judgment. I would like to ask the attention of the Commission to the method of appointing the Principal in the Universities of Germany. He is there called Rector, but it is the corresponding office. There is no one set apart for that office alone. One of the professors is elected to it by the *Senatus* annually, from each faculty in turn, and he is re-elected for another year. He is their chairman and their official channel of communication. The new Principal delivers a public address, and the position is esteemed a high honour; but it is not a money office, and he goes on teaching as before. The Germans find that system work well. The principalship in the Scottish Universities has, I believe, drifted away from its original character. The Principal, or *Gymnasiarch*, as he was called, not only taught like the other professors, but was required to reside so closely in college, that, if he was absent for three successive nights without leave from the collegiate body, he was liable to deposition. But now the Principals, with one exception, have got quit of teaching duties. A University is not like a school in which there is a head-master with authority over other masters. In a University, such interference by a Principal is not needed, and would be intolerable to men in the position of professors; that is the duty of the *Senatus* as a united body. Then, as to business, the *Senatus* has a secretary who conducts its business, and has a salary for doing so, and we have, besides, a man of business, the 'Factor,' also a paid official, who manages the

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accounts and the money affairs of the University. What is left as the duty of the Principal of a Scotch University now-a-days is really next to nothing at all, nor can the office be defended as the best way of providing leisure for research. It is a position of privileges rather than duties, and the power placed in the hands of the Principal is great; for, besides being entitled to occupy the chair at the Senatus, he has a permanent position in the University Court. I think the method in the German Universities is better than ours, and it has the further recommendation of being economical. The salary attached to the office of Principal would, as the offices fell vacant, supply good endowments for a couple of new chairs. If the Principal is to teach, and also be permanent as Principal, that implies that one of the professors will be appointed as Principal, continuing to discharge his duties as professor at the same time, and the additional remuneration need not, in that case, be great, as the position ought not to be sought for money. This kind of principalship we see adopted in the Theological Colleges of Scotland outside the Universities. That, I think, would be better than the present method in the Scotch Universities, it would at least save a couple of good endowments for chairs; but the method in the German Universities is, in my opinion, much the best. That is the footing on which each of the faculties in our Universities elects its Dean; the Principal, on such a system, would be a kind of general Dean, would preside as chairman of Senatus, and represent the Senatus in the University Court; would give the public address in his turn, and do everything which the Principal is at present required to do, feeling that he occupied the position as an honorary one; and he would go on teaching his class as before.

7841. With regard to the emoluments and retiring allowances of professors, have you some suggestions to offer?—In regard to the endowments of the chairs in our Medical Faculty, the Physiology (Institutes of Medicine) chair is the one which stands most in need of increase. Physiology has recently made so great progress, and the method of teaching it has so much changed, that it must now be held to be one of those subjects which require the undivided attention of the professor. Besides adopting a more demonstrative method in the lecture-room, the professor now requires to work in a laboratory; has to apply chemistry to physiology, in examining the fluids and solids of the body; has to apply physics to physiology, in connection with electricity, heat, light, sound, motion of fluids, etc.; and has to use the microscope in the study of physiological action. A man who is engaged in practice cannot possibly do that satisfactorily. Our faculty has mentioned not less than £400, instead of the present £200, as the endowment necessary. Although the class fees are at present only about £150, they would, I believe, with a professor who threw himself entirely into physiology, amount to about £300, probably not more. £700, indeed, is not a great income, now-a-days, with which to tempt a man who has the qualifications for such a chair to throw up his profession. The endowment, indeed, should be £500. It would be well at the same time to drop the antiquated and vague title 'Institutes of Medicine' for the chair, and use the term 'Physiology,' which correctly describes the nature of the chair and is now the customary title. The endowments of the other scientific chairs in our Medical Faculty are—Botany, £300; Natural History, about £320; Chemistry, £250; Anatomy, £150; and those of the five chairs the occupants of which are engaged in practice—Surgery, Practice of Medicine, Midwifery, Materia Medica, £150 each; Medical Jurisprudence,

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£175. Although it is true that the occupants of these five professional chairs may make good incomes outside the University, it is desirable that in Aberdeen these professors be so endowed that they may be able to put aside general practice, and confine themselves to consulting practice, besides discharging their University and hospital duties. This applies especially to Aberdeen, where the field for making an income outside the University is so much smaller than in Edinburgh or Glasgow.

7842. You mean, they should not be engaged in ordinary family practice? —Yes. Among the scientific chairs, Botany is not in so good a position at present as Natural History, as only the students of medicine are required to attend the Professor of Botany, while the Arts students as well as the medical students are required to attend the Professor of Natural History. The endowments of these two chairs being nearly the same, the result at present is, that while the emolument of the one is £725, that of the other is but £540, as given in the returns to the Science Commission. Unless these two chairs are to occupy the same position in the Arts curriculum, the endowment of the Botany chair would therefore require a greater increase than that of the Natural History chair. In regard to the endowment of the Anatomy chair, I may mention that the corresponding chair in Glasgow has an endowment of £250, and that there is a college residence attached to the chair, together equal to an endowment of £350. The income of the Anatomy chair depends in large proportion on class fees, and is therefore liable to great fluctuation with the rise or fall in the number of students in the medical school and in the class itself. Were the number of students to fall again to nearly what it was when I came to Aberdeen, or even to diminish much, the Professor of Anatomy could not live by his chair. He would be driven to go into practice as a surgeon. That might be a lucrative step for him, but it would be a very unfortunate thing for the medical school. I hope it will not be regarded as out of place in me to venture to impress on the Commission the importance of the Professor of Anatomy being enabled and encouraged to devote himself to the work of the anatomical school. I have now, between Edinburgh and Aberdeen, been a teacher of anatomy for thirty years; and what I say must be much more for my successors than for myself. The system in London is a warning to us. The schools there are so subdivided that the lecturer is unable to live by his teaching duties, and engages in surgical practice. Parts of the course are handed over to a second lecturer, the practical part to a third, all of whom are on the move to leave anatomy for surgery or medicine on the first opportunity, and they are constantly changing. In the Scottish Universities, the Professors of Anatomy, as in the German Universities, devote themselves to their department; and I may be allowed to say that the Scottish Universities, as medical and scientific institutions, owe a great deal to this fact. It was the high reputation, as an anatomist, of the first Monro, which gave the Edinburgh medical school its high character from the beginning. It was the custom for a time for Professors of Anatomy to combine consulting practice with anatomy, but the progress of the science has made that impossible, and all the Professors of Anatomy in Scotland now devote themselves to anatomy. In Scotland, comparative anatomy has always been cultivated and represented by the Professors of Anatomy and the extra-mural teachers of anatomy,—the first and second Monro, Barclay, Knox, John Goodair,—and, in recent times, the increased necessity for interpreting structure homologically has laid on their successors the necessity of a large addi-

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tional amount of study; and the progress of our knowledge of minute structure has no less done so. On the other hand, it will not do to have anatomy taught, as botany, or natural history, or chemistry may be, by men who are purely scientific; for, although no one would deserve a place in a University as Professor of Anatomy who is not a scientific anatomist, yet he would be still less fitted for the position were he unable to teach anatomy from the professional point of view. He would in that case be unable to give what the students of medicine are mainly there to receive from him. The remuneration, therefore, offered in the chairs of Anatomy must be such as to tempt men to throw up their profession; and that is no small thing, in these days of large professional incomes, for a man to do who has the qualifications required in a Professor of Anatomy. But it is the laborious nature of the duties of the chair of Anatomy which require that professorship to be on a special footing. In other departments in which practical classes exist, the class comes for an hour, or perhaps another hour, and goes away, leaving the professor free. But the practical anatomy class meets throughout the day from nine to four o'clock. I begin at nine in the morning, and it is five o'clock till I get away. I am not engaged during that time in research: that has to stand over till the autumn holidays, or Saturday afternoons; and such work as study, or reading class exercises, has to be left over till the evening. During these eight hours daily, I am two hours in the lecture-room, the rest in my practical rooms, busily occupied in one way or another in the work of the anatomical school; and as I am on my feet during probably six or seven of these eight hours, the physical labour, to say nothing of the mental labour, is great, is in fact fatiguing. And the anatomical work goes on during the summer session also, requiring my whole time daily from nine A.M. till five P.M. The professorship which comes nearest to the anatomical in point of work required, is that of chemistry; but I am safe in saying that, taking the year round, the teaching work required of the Professor of Chemistry is not half that required of the Professor of Anatomy; and as to the other chairs, the contrast, in regard to time and work required, is so great that they will not compare. Our Senatus, in its communication of 16th October to the Commission, expresses the opinion in regard to the emolument of chairs, 'That none of those that exclude the professor from other professional income should have less than £800 a year.' In that opinion I agree, but the Senatus has failed to draw any distinction between chairs to which laborious teaching duties are attached, and those in which these duties are comparatively light; and I have, therefore, felt it to be my duty to ask the attention of the Commission to this distinction. May I further be allowed to say that devotion to the work of the anatomical school by the Professor of Anatomy is of very great importance to the prosperity of the medical school? In saying so, I can speak for Edinburgh as well as for Aberdeen, the history and conditions of success of both schools being known practically to me; and I have no hesitation in expressing the opinion that it will be a serious thing for the medical school, either of Aberdeen or Edinburgh, should it ever again happen that the Professor of Anatomy, from whatever cause, does not devote himself wholly and energetically to the work of the anatomical school. In regard to emolument arising from class fees, one often hears the opinion expressed that, in all the Universities and in all the faculties, the class fees should be raised a guinea, in accordance with the rise in the expense of living which has taken place in the last few years. If this is to be, it would require to be

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done by Ordinance, as one University could not move in this without the others. But if any step of this kind is to be taken, I wish to express the opinion that the class fees in the provincial Universities should continue to be, as at present, a guinea less than in the Metropolitan University. I may mention that, in 1872, our University Court had the subject of class fees under consideration; not the first fees, which, for Aberdeen, are fixed by Ordinance (No. 12, secs. ii., iii., iv., and v.; and No. 27, sec. i.), but for subsequent attendance on the same class. I hand in to the Commission the regulation which the University Court then made after going very carefully into the whole matter. The only change on the existing practice in the Faculty of Medicine was to raise the fee one guinea for second attendance on the classes of botany, natural history, and chemistry; and in the Faculty of Arts to charge a guinea for second attendance on any class. But re-attendance on the same class in Arts in Aberdeen is rare, although it is common in the medical classes. I ought perhaps to mention, that there was no proposal on my part to raise the fees in the anatomy class, although the fee for the practical class is small. I would draw the attention of the Commission to the fact that any information it may ask from our University,—and I believe the same will apply to Edinburgh and Glasgow,—in regard to emolument arising from class fees, will be fallacious in regard to the medical chairs unless taken over a long period. The returns applied for by the Royal Commission on Scientific Instruction were asked for the last three years only; but these, it so happens, were high years in the medical classes compared with the previous ten years, and consequently made the emolument of these chairs appear much higher than they had really been, while the class fees in the Faculty of Arts have been about the same during the whole of that time. If any returns are asked for on this subject, they would require, in order to be reliable from Aberdeen, to date from the time of the union of the two colleges, and there will be no difficulty in our registrar supplying them from that time. I may mention that, in Aberdeen, the professors do not draw the fees; the registrar draws them, and hands them over to the professor. I may state shortly my own opinion in regard to the method of increasing the emolument of the chairs. Either the endowments or the class fees should be raised. I have nothing to say against the justice of the proposal to raise the class fees a guinea in all the Universities and in all the faculties, but I doubt its expediency at present. I advise rather to increase the endowments, mainly on the ground that they are proportionally, as well as actually, too small, leaving especially some of the chairs too much at the mercy of the fluctuating element of class fees. Speaking for the chairs in the Medical Faculty in Aberdeen, I think there should be two rates of endowment: one, the higher, for the chairs of Physiology, Botany, and Natural History, in which the endowment should be not less than £400, and, if possible, £500; the lower, for the chairs the occupants of which are engaged in practice,—Surgery, Medicine, Midwifery, Materia Medica, and Medical Jurisprudence,—in which the endowment should be not less than £250 (£100 more than at present), and, if possible, £300. The chairs of Chemistry and Anatomy I would class rather with the latter group as regards endowment; for though they are scientific, and require the devotion of their occupants to their departments, they have considerable fees from their practical classes. At the same time, the much more laborious teaching duty which falls to the professors of chemistry and anatomy may make it just that their endowments should not be on the lowest

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scale. I put chemistry and anatomy on the same level as to endowment, because, though the anatomist has the largest practical classes, the chemist has a source of professional income from analyses pursued in his laboratories. These considerations will apply equally, whether we go on with the present system of each professor receiving the fees paid in for his own class, or adopt the system of having a common fund for class fees in each faculty, with duly proportioned allocation from time to time by the University Court.

7843. Can you give us a notion of the emoluments you yourself have derived from class fees for any number of years?—I cannot state the amount precisely, but I furnished returns to the Science Commission—though they were too late to be published in the report—and returns could be furnished at once by our registrar to this Commission. The increase in the emoluments has been considerable since I went to Aberdeen. I found the chair not worth £600 a year, and a rather decreasing school, and I was almost on the point of going back to Edinburgh to recommence as extra-mural lecturer. But the class has steadily increased, and the emoluments are now much better than they were at that time. The school has doubled, and, in addition to that, my class is a very large one. In the anatomy class the income depends partly on the size of the school, but largely on the activity of the professor. May I be allowed to remark that, after thirty years of constant and hard work, I am now able to live and educate my family. Had I remained in my profession, I daresay, from what I see of those whom I knew well as fellow-students or as pupils, I might have had two or three times the income I have. But it was my choice, and I will be content if the school and the class keep up. I must say, however, that it is fatiguing work, more so, I fear, than most men will be able or willing to continue long.

7844. There were none of the professors in the University of Aberdeen examined before the Royal Commission on Scientific Instruction?—No.

7845. What was the cause of that?—I have prepared a statement in anticipation of that question. I desire to explain to the Commission how it was that the Senatus of our University did not accept the invitation addressed to it in 1872 by the Royal Commission on Scientific Instruction and the Advancement of Science, to give evidence before it. I beg leave to say for myself that I thoroughly disapproved of the course pursued by the Senatus in that matter. On the appearance of the report of the Commission in 1875, the Senatus felt that it had placed the University in so awkward a position, that a committee was appointed on 11th December to take some action in the matter. The committee, of which I was a member, met on 20th December, and prepared the materials for a report which it was intended to lay before the Treasury and the Lord Advocate; but it was considered that necessity for further action in the matter was superseded by the announcement, just made at the time by Lord Derby at Edinburgh, that it had been resolved to issue a Royal Commission of Inquiry for the Scottish Universities. It will be enough for me to mention that a reason assigned in the draft report for the declinature by the Senatus to give evidence was the differences of opinion among us as between classical and scientific studies. The fact is, that the majority of our Senatus had no desire to open up questions of scientific or other modern education. For myself, I should have been only too happy to go before that Commission and say what I have said

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here to-day; and I may be allowed to point to this unfortunate resolution of our Senatus as an illustration of the opinion I have expressed that improvements in the system of Aberdeen University can be effected only by a power external to it.

7846. Did you consider the resolution of the Senatus to be binding upon all the professors on the question whether any individual should be examined as a witness before a Royal Commission?—My impression in reference to the Science Commission at the time was, that there was an application to our Senatus to send up members. It was so taken up by the Senatus, and I recollect advising that members be sent, and expressing my wish to go.

7847. To whom did you express your wish?—To our Senatus.

7848. In point of fact, there was no professor from Aberdeen examined at all?—None.

7849. And no returns were made?—We made returns when they were asked, three years afterwards, but they were too late to be included in the report.

7850. Have you anything to say on the subject of bursaries?—The Commission has probably had sufficiently brought under its notice the very large number of bursaries in Arts, and the large number in Divinity in proportion to the students, in Aberdeen. I should like to draw the attention of the Commission to the want of bursaries in Medicine. I beg to hand in to the Commission a printed report on this subject prepared by me for our General Council in 1874, which was adopted by the Council, and ordered to be circulated to the members. From that report it will be seen that the number and value of the bursaries and the number of students in each faculty stood, in 1874, as follows:—

	Number of Students attending.	Number of Bursaries.	Total Annual Value of the Bursaries.
Arts, . . .	852	223	£8751 6 0
Divinity, . . .	42	27	639 0 0
Medicine, . . .	251	1	26 0 0

Besides this, the scholarships and special prizes awarded to graduates in Arts, or fourth-year students in Arts, amount to an annual sum of £753, of which £618 is confined to graduates in Arts. To that report I have only to add, that the sum annually given as bursaries in Arts is now over £4000; that four new bursaries in Divinity have just been founded, while the number of students is now twenty-eight; and that in Medicine one bursary has been founded, value £15 annually, by the kindness of the Glasgow Aberdeenshire Association. It is a significant fact that the numbers in the two faculties in which there are so many bursaries have either stood still or have fallen off, while the numbers have increased in the Medical Faculty, which has next to no bursaries. In view of that fact, we have, I believe, no desire to have a large number of bursaries; but we think that a limited number, say from twelve to fifteen falling vacant every year, could be extremely well bestowed among most deserving students, and best bestowed by competitive examination in the subjects of the first year of medical study, among those who had already studied for a session, and have shown what they can do. It is mainly by making the want known that we hope to succeed, and, if I may venture on the suggestion, I believe that it would help us in this, in the event of the Commission approving of the movement, were the Com-

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mission to commend the object to intending benefactors. But something admits also of being done by Ordinance. (1) The Milne bursary, value about £26 for one year, now presented by the Senatus to a student who has completed his fourth year in Arts, to pay his apprentice and infirmary fee as a medical student, might be converted into a competition bursary, open to all students of medicine in their first year. (2) Any bursaries at present confined to the Arts Faculty, but in the deed of foundation of which no faculty is mentioned, might be allocated to medicine. (3) It is a question whether, in view of the enormous number of the bursaries in Arts, some of them might not be transferred. The fact that the sciences, which largely occupy the first two years of medical study, really belong to general education, may tend to make that view appear the more reasonable; but any claim on this ground would cease were the bursaries open alike to those studying for the degree in Science and for the degree in Arts. In regard to the conditions on which the Arts bursaries are held, I think that any Executive Commission that may be issued should have power to revise all foundations, not merely those which have been in operation for fifty years, to which the last Commission was restricted by the Universities Act (clause xv. 2), otherwise it may be unable to make all the foundations fit into any new system of graduation which may be enacted. I think also that the regulations for our bursary competition should be made by Ordinance—I do not mean in detail, but in order to secure that the competition shall be carried out on the optional principle, corresponding to any options which may be allowed in the curricula for degrees in Arts and in Science. It is of no less importance to us in Aberdeen to have that secured by Ordinance than to have, as at present, the details of examinations for degrees settled by Ordinance. I would not leave the one more than the other to the Senatus. Again, every bursar is now obliged to go through the whole of the present curriculum, and in a particular order, whether he wishes the degree or not. I do not see why a bursar who has gained his bursary by competition, which implies a good preliminary examination, should not be allowed, or his friends for him, to select certain classes and leave others. But here again we come on the money interest which each professor has in requiring the student to attend his class, a difficulty from which I see no escape but by the plan of having a common fund for class fees in the faculty.

7851. Are there no bursaries in medicine?—We have just two.

7852. Have you any observations to offer on the financial position of the University?—In regard to our finances I desire to bring under the notice of the Commission the sources of and the mode of dealing with our General University Fund. What I desire more particularly to show is, that the medical department is the great source of funds to the University, and that, notwithstanding this, the medical teaching is starved in order to support the other faculties. The following figures show the sources of income of the General University Fund for 1875 :—

From students of Medicine	{ Matriculation, £233 10 0 }	£1667 10 0
	{ Graduation, 1434 0 0 }	
From students of Arts	{ Matriculation, 334 0 0 }	544 8 8
	{ Graduation, 210 8 8 }	
From students of Divinity	{ Matriculation, 36 0 0 }	51 15 0
	{ Graduation, 15 0 0 }	
From students of Law	Matriculation,	14 0 0
		<hr/>
		£2277 18 8

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Brought forward,	£2277	13	8
Other sources of income of the fund—			
Surplus income of Alexander Adam foundation,	328	11	0 $\frac{2}{12}$
General Council registration fees,	171	0	0
Interest on capital,	58	16	1
Miscellaneous receipts,	3	15	6
	£2839	16	3 $\frac{2}{12}$
Sum carried to 'Reserve Fund' (being 5 per cent. on the £2839, 16s. 3 $\frac{2}{12}$ d.),	£141	19	7
Expenditure,	1941	11	10 $\frac{6}{12}$
	£2083	11	5 $\frac{6}{12}$
'Residue,' carried, by Ordinance, to Library Fund,	£756	4	9 $\frac{6}{12}$

The accounts for 1876 are not yet before the Senate, but the facts are known to me, and are still more favourable to my argument, the income derived from the students of medicine, for 1876, being for matriculation, £267; for graduation, £1460;—total, £1727. These figures show the very large sum contributed to the fund by the medical department, being over three times that contributed by the Faculty of Arts, and nearly three times as much as that by the Faculties of Arts and Divinity together. But difficulties have been thrown in the way of the medical classes receiving back what they require in the matter of class expenses, assistants, etc. It was held in the Senatus that the General Fund could not be applied to these objects, as they are not included in the enumeration contained in the Ordinance (Ord. No. 12, sec. ix.); and this although the Senatus had already sanctioned the expenditure of the fund for advertisements, class prizes, law pleas, etc., objects which are not mentioned in the enumeration. It was only after we had obtained a legal opinion in its support, that the objectors in the Senatus were obliged to yield the point that 'assistants' come under the general words 'ordinary current expenses' used in the Ordinance just referred to. Although that Ordinance was supplemented by Ordinance No. 27, section v., it is still deficient in explicitness, and requires reconstruction. The corresponding clauses for Edinburgh (Ord. No. 23, sec. xxxviii.), and Glasgow (Ord. No. 22, sec. xxxii.) are more comprehensively expressed; but still the word 'assistants' does not occur in them, though it does in the clause for St. Andrews (Ord. No. 21, sec. xvii.). Yet Edinburgh University has applied its General Fund for assistants. But the peculiarity of the Aberdeen Ordinance (Ord. No. 12, sec. ix.) lies in its concluding words: 'And the residue of the said General Fund shall be applicable to the purposes of the library or libraries of the University.' The effect of this has been to cause the medical teaching to be starved for the wants, real or imaginary, of the library. The low figure of the 'compensation grant,' in lieu of the privilege of Stationers' Hall, in the case of the Aberdeen University library, was possibly the reason for this restriction in the application of the 'residue' of the General Fund; but it was unnecessary, and has led to remarkable results. I do not mean that the claim of Aberdeen to have the 'compensation grant' raised is not a just one. On the contrary, I would press it strongly as a just thing in itself, as a public object, and further as a step by which a larger part of the funds of the medical school would be set free for the purposes of the medical school. But what I desire to bring out is, that this constant fear for the library has starved the medical teaching to an unnecessary extent; for these 'residue' balances, saved off the medical school every year since 1860,

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have not only been enough to meet the wants of the library, but have accumulated a large surplus library fund, amounting in April 1876 to £3090, besides a balance of £762 at the credit of the library. But, more than this, besides contributing to the ordinary annual support of the library (in supplement of the £320 from 'compensation grant,' and the £50 from the Fraser foundation), these annual 'residues' have met also the large special expenditure connected with the removal of books to the new library building, cataloguing and printing catalogue, now completed, and also a large extra expenditure for purchase of books to make up past deficiencies in books. The total sum of these residues, since 15th September 1861, has been £6724. The accumulated library fund of £3090, which now remains after paying all extraordinary expenses connected with cataloguing, printing, etc., may be reckoned, with the interest accruing from it, as ample provision for future contingencies over and above the ordinary annual expenditure. But this reserve library fund will go on accumulating from year to year if the Senatus continues to stint the medical teaching in order to secure large annual 'residues' for the library. At least one-half of what has been handed over annually to the library may now safely be applied to strengthen the medical teaching; and were the library duly provided for by an increased 'compensation grant,' the whole sum would be at the disposal of the University for the same or similar purposes. I ought to mention that, besides the above fund of £3090 accumulated for the library, there is also the 'Reserve University Fund,' recommended in the report of the Commission of 1858 (p. 21) to be instituted as a 'provision against contingencies,' by setting aside annually not less than 5 per cent. of the income of the General University Fund. This fund now amounts, at 15th September 1876, to £1848, 19s. 0d. This fund can be applied to any of the purposes to which the General University Fund is applicable, including the library, as one of the ordinary current expenses of the University. I think, therefore, that it is a mistake to tie up the annual 'residue' of the General University Fund to the library; that there should be simply a general 'Reserve University Fund,' from which the library would receive special assistance when it needed it. I think it very wrong, and now strongly calling for rectification, that money should be annually accumulated, and tied up to a purpose for which it is no longer needed, and that at the expense of a department of the University which has furnished the money, and which is in much need of it to strengthen its teaching. I should like next to show to the Commission the relative expense of the different faculties to the University. From the Faculty of Medicine occupying Marischal College, and the Faculties of Arts and Divinity occupying King's College, I have been able to estimate the share of the expenditure incurred for each in the use of the buildings as well as the expenses incurred in the name of the respective faculties, embracing such items as servants' wages, heating, lighting, insurance, rates and taxes, printing, stationery, class prizes, advertising, class expenses, apparatus, museums, etc. Although I have credited the Medical Faculty with the whole of these expenses in Marischal College, that building includes also the two large halls in which the Arts examinations are held, and the Natural History department, which belongs to Arts more than to Medicine, so that my estimate is within the truth. I analysed carefully the whole accounts of the General Fund for 1873 and again for 1875, and I find that the Faculties of Arts and Divinity and King's College (exclusive of the library) took out of the General Fund more than they brought into it.

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In 1875 the sum which they cost the General Fund I find was £685, 0s. 8d.; the sum which they brought in being, as given above, £596, 3s. 8d. On the other hand, the sum which the whole medical school and Marischal College together, including museums, apparatus, class expenses, etc., cost the General Fund, was £947, 7s. 0½d., while the sum contributed by the students of medicine was, as given above, £1667, 10s. 0d. The sum of about £300, including salaries of librarian and of secretary to Senatus, and other general expenses, could not be referred specially to either faculty; and an available sum equal to this is supplied by the other sources of income of the General University Fund. Thus the faculties of Arts and Divinity teaching in King's College actually take out of the General Fund more than they contribute to it—I mean, without making any contribution whatever to the library. They are consuming more than producing faculties. The medical school, on the other hand, besides providing for all the expense which it occasions to the University, and contributing to the growth of the museums, furnished to the University the handsome sum of £750, forming nearly the whole of the 'residue' handed over to the accumulated library fund. The medical students are thus not only supporting their own proportion of the library, but are buying books for the Faculties of Arts and Divinity—are even supplying the Arts and Divinity students and their professors, with coals to keep them warm, and are, besides, annually swelling the accumulated fund of the library. In reply to this complaint, that although the money is there we cannot get what is reasonable for the purposes of the medical teaching, it may be said that the Senatus has power to vote sums for these purposes before the annual 'residue' is declared. Now this is just where we need the Commission to help us. It depends on a vote of the Senatus, and the fact is that we are outvoted by the professors in Divinity and Arts. These respected colleagues are unable to see why teachers of the natural and medical sciences should need anything more than merely, like themselves, a room to talk in. On the day when the grants are voted, we have medical and scientific professors entreating and remonstrating, the others objecting and refusing; it is a kind of scramble, as undignified as it is unsatisfactory. We might appeal to the University Court; but unless the Rector happens to be present, the same objectors are there forming half of the quorum of the Court, and any appeal would be in vain. What we want is a new Ordinance, fixing what is necessary for our class expenses, museums, and assistants, and rendering us independent of the chance vote of gentlemen who do not understand these things. It might be well if each faculty had its own matriculation and graduation fund, handing the balance over to the general fund after providing for the expenses of the faculty. Our Faculty of Arts would thus be made to feel the necessity of exerting itself, instead of relying on the supplies from the medical school. Were the Arts education more adapted to the age in which we live, it would have a larger number of matriculation fees and a larger graduation fund to show. In some way or other our Faculty of Arts should be made to feel the necessity of exerting itself and of being at least self-supporting. For one thing, I am unable to see why the charge for the A.M. degree should not be raised. The medical student has to pay £20 for his pass degree (B.M. and C.M.), and £15 more (£10 of it for stamp duty) for his doctor's degree (M.D.); while the charge for the A.M. degree is only £3. The degree in Arts has now a well-recognised value for a teacher, and the bursaries, which nearly all those who go on to our A.M. degree have enjoyed, render graduates in Arts the more able to pay for their degree. It should be at least £5, but

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more than that would be reasonable if it is necessary to render the faculty self-supporting. Or, in order not to throw it all on those only who take the degree, there is no reason why the matriculation fee in any faculty should not be increased to the extent necessary to meet the expenses of that faculty. It is certainly unreasonable to make the medical students support not only themselves, but, in part, also the students in Arts. With reference to the future of the medical graduation fund, it must, of course, be kept in mind that it is liable to fluctuation, following the fluctuations which occur in the number of the students. But I see no ground to fear the occurrence of any great diminution of our medical school, for its success has been steady and genuine, and owing to causes which we recognise and have in our power. The medical graduation fund has during the ten years ending 1875 averaged £1025; during the last five of these years it averaged £1258; during the last three of these years it averaged £1418; and in 1876 it was £1460. Graduation follows four years after entry, and this winter we have the largest entry of beginners we have ever had. This source of income is more likely to increase than to decrease; but, making all allowance for possible decrease from causes beyond our control, I should think we would be very safe to reckon on a medical graduation fund of at least £1200, besides matriculation fees. As matters stand just now, the General University Fund could bear charges amounting to £300 to assist the medical teaching; and if we get the 'compensation grant' to the library augmented, and a Parliamentary grant for our museums, the medical graduation fund will be largely set free for the purposes of the medical school. An advantage in the plan of providing for the more permanent objects, as library and museums and the chief assistantships, by Parliamentary grants, and throwing the charges for the expenses of the medical classes on the General Fund, would be that, if the medical graduation fund ever did diminish much, the occasion for the expenses would diminish in proportion, and the charges on the fund could be lessened by altering the Ordinance. As to the body in whom the administration of the funds should be vested, it would be well, I think, if professors had as little as possible to do with anything but teaching and research; but I see no other way than the continuance of the present system of administration by the Senatus, subject to the review and control of the University Court. I would suggest that the express sanction of the Court should be necessary before any permanent expenditure be laid on the General University Fund, or any large expenditure incurred.

7852*. I think you have some observations to offer about the libraries and museums?—Yes. I think that both the library and the museums are very proper objects for assistance by Parliamentary grants. The attention of the Commission has already been drawn by some of my Arts colleagues to the desirableness of increasing the sum which Aberdeen University receives for the library as 'compensation grant,' in lieu of the privilege of Stationers' Hall. The compensation grants for the libraries are:—for Glasgow University, £707; for St. Andrews, £680; for Edinburgh, £575; and for Aberdeen, £320. If there is any technical objection to increasing this grant as such, we hope that a special grant may be given for the annual expenditure on our library. I think that a grant for the library would be reasonable in itself,—the library being a great public object,—and also because the medical teaching has been stinted in order to make provision for the general library. But it belongs to me to speak more particularly for the museums. I may explain the arrangement of our museums. There is the Natural History

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Museum, which represents two subjects, geology and zoology; the Botanical Museum; the Anatomical Museum; and the Pathological Museum. In institutions in which the specimens are intended to be studied only on the shelves, and in which the buildings admit of it, the best plan is to have all the collections in one great museum hall. But our buildings have not been constructed on that principle, and, besides, in a teaching institution it is more convenient to have the several collections near the respective class-rooms. The Botanical Museum is placed beside the botany class-room, the Anatomical Museum at the back of the buildings beside the rest of the anatomical department, and the Pathological Museum is at the front of the north wing, near the surgery and medicine class-rooms. The Natural History Museum is an excellent and very well kept collection. As museum-making is very laborious and often thankless work, it is but justice to the memory of the late Professor Macgillivray, with whose work in Edinburgh I was also acquainted, to mention that the collection owes its existence largely to him, especially in minerals and birds. Since I went to Aberdeen, considerable additions have been made to the collection of vertebrated animals. It is rather deficient in geology, and in dissections showing the internal structure of invertebrated animals. A natural history museum on a much larger scale has been talked of, but that is an enterprise on which I would look with great caution. I have had a great deal to do with museums, and am personally well acquainted with the museums of Edinburgh and London and with most of the museums on the Continent. A museum may be proceeded with on one of two systems: either on the metropolitan scale, as we see in London, Edinburgh, Dublin, Paris, Berlin, and Vienna, aiming at universality, implying an extensive building and expensive provision for maintenance; or on the system of aiming at the formation of a select collection, serving for teaching purposes and for illustration to the public of the more important and interesting objects, as we see in the provincial Universities on the Continent and in our own provincial Universities. The museums in the various Continental Universities, I have observed, vary here and there according as they have had the good fortune to have had a professor who worked at museum-making; but, on the whole, the Natural History Museums of Glasgow, Aberdeen, and St. Andrews will bear comparison with those of the provincial Universities on the Continent, though I cannot say so much as yet for our anatomical and pathological museums. The extension of the building for our Natural History Museum may possibly be needed some day,—the appointment of separate Professors of Geology and Zoology would probably lead on to that,—but at present I would not like to involve our University in such an extensive enterprise; for with us, besides the increased expense of the maintenance, it would imply, in the first place, buying up the adjoining house properties. The natural history department—museum-rooms, lecture-room, and laboratories—occupies the south half of the main building and the whole of the south wing of Marischal College, and these are in quite close contact with the houses of the neighbouring street. But there would be no difficulty in finding sufficient ground for new natural history buildings at King's College, if that was thought advisable. The present ordinary expense of our Natural History Museum is not great. The attendant has a salary of £60 and a residence in the building, and there is an ordinary grant of £15 for the museum, by vote of the Senatus, from the General University Fund, besides occasional extra grants when the museum committee asks for them. Formerly admission to the museum

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was on application, and perhaps a supposed gratuity to some servant. I advised the system which was in use in Edinburgh in my day,—that of free admission to the public on Saturdays,—and the museum is largely visited since on Saturdays. On other days admission is by ticket, for which a small charge is made (6d. admitting three), which annually produces a mere trifle, and is made not for the purpose of drawing money but of regulating admission, as, were the museum constantly open, an additional attendant would be necessary. The University would look to the town to provide for this, and indeed to make a contribution to the museum generally, in the event of any proposal to extend it greatly as a Museum of Science and Art. I suggest to the Commission that an annual grant of £100 to our Natural History Museum, including attendance, would be reasonable, leaving the rest to be done by the University according to varying circumstances. The University of Edinburgh has been relieved of the expense of maintaining a museum of natural history by Government taking it over as part of the Museum of Science and Art. We in the provinces regard that as a very great advantage over us possessed by Edinburgh University, and by Edinburgh generally, in its educational aspect; and if an additional reason be required, this may be urged as an additional ground for asking a grant for our Natural History Museum. For the Botanical Museum the Senatus gives an annual grant of £10 from the General University Fund. This sum would require to be considerably increased, and might reasonably be made a Parliamentary grant. I suggest a grant of £25 for this purpose. My colleague, the Professor of Botany, authorizes me to say that he would be satisfied with this so far as the museum is concerned. The Anatomical and Pathological Museums have at present a grant from the General University Fund, by annual vote of the Senatus, of £20 each. It is in these two museums that the medical school has a more particular interest, and they are greatly in need of funds. Good museums are essential in modern medical education. As the objective method of teaching is comparatively new in Aberdeen, the museums of the medical school are as yet only growing. The Pathological Museum contains some very good specimens, and owes its existence mainly to Dr. Pirrie, our Professor of Surgery, who has worked long and enthusiastically in the Aberdeen medical school; but the collection is a small one for the size of the school, and stands greatly in need of extension. This museum would of course extend more rapidly if we had a Professor of Pathology, who would naturally be its chief curator. The Anatomical Museum, I may be allowed to mention, has been a special work of my own. I can never forget the depression I felt when, on going as professor to Aberdeen in 1863, I was shown all that was for an Anatomical Museum. I felt it to be impossible to carry on an anatomical school according to modern methods without a good museum, and I at once set about it. I had before me as models the Anatomical Museum of Edinburgh University, and that of Dr. Barclay, in the keeping of the College of Surgeons, which I had been accustomed to use; and I took some hints also from the museum of John Hunter, in London, but of course my work was to be on a much smaller scale. Although it would not have been so convenient for me, I thought at first of a large general anatomical and pathological museum for the medical school, but the buildings and the space would not suit; and I found that the only way was to have a separate anatomical museum beside the other anatomical rooms at the back of the college, where there was just space enough for it. My application for a building was refused, although I thought

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the object a very reasonable one; but a change of Government took place, and my renewed application was granted. This, however, got me merely the shell,—the museum proper, or collection, was still to form. I had my own private collection, which I took with me from Edinburgh, which still stands by itself in certain cases; the rest I have prepared, or otherwise provided, mainly by the work of my own hands and at my own expense, assisted by the small sum of £20 which the Senatus has lately voted annually for the museum. I have the pleasure of being able also to say, that both former and present pupils have taken a warm interest in assisting me to procure specimens. The collection, though far from complete, is pretty well advanced, and forms a most useful, I may say indispensable, addition to the teaching power of the school. It may give the Commission some idea of how new this kind of work was in Aberdeen, and how completely the method of teaching has been changed, when I mention that, when I first put up the skeleton of a horse, some twelve years ago, people came in crowds to see it as something quite new; and so indeed it was, for it was the first thing of the kind that Aberdeen University ever saw. This was not a money question, but one of method of teaching and labour to the professor, for the horse did not cost a shilling, though he cost me a good deal of time and trouble to clean and put up. But many of the specimens have cost me money, and the spirit and glass, and other expenses of mounting them, cost a good deal of money. In suggesting a grant also for the Anatomical Museum, I may mention that the collection is one of scientific as well as surgical anatomy. I don't mean a museum of zoology,—that I consider it the business of the Natural History Museum to provide for,—but an anatomical museum, embracing primarily human anatomy, and, together with it, such parts and organs of the higher animals, constructed like the human body on the vertebrate type, as serve to illustrate human structure. The Anatomical Museum is very conveniently placed for study, opening by one door from the dissecting-room, by which the students enter when they wish to study the specimens, and by another door into the lobby of the anatomical lecture-room. The building is 55 feet long by 30 feet wide, and, being entirely lighted from the roof, the gallery space is uninterrupted. There are altogether, in the floor and gallery and adjoining room, about 350 feet, lineal, of glass cases, besides the gallery rail cases; and the floor space is for the larger specimens. The grants which would be required for the Anatomical and Pathological Museums will depend on whether payments for curators and for attendants are to be included. I don't think that there should be payments for 'curatorship' or 'conservatorship' of museums in an institution like ours. It is different in the case of large public museums. In a teaching institution like ours, the Professors of Natural History, Botany, Anatomy, and Pathology are naturally the curators of the respective museums. Although I have been a good deal more than curator to the Anatomical Museum, I should feel ashamed to ask to be paid for superintending the work of the museum. Nor are young and frequently changing assistants of much use about museums. All who have had much practical experience of museum work will, I believe, agree with me that the most useful person about a museum, working under the directing head, is a skilled attendant,—an intelligent, neat-handed servant, who has a liking for his work. Our Natural History Museum has, and must always have, such an attendant. Any help of that kind I have had is from the dissecting-room servant, at odd hours, and I have had three successive servants to train, for the employment is neither attractive

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nor healthy. It would be useful in our medical school if we had a skilled attendant like the attendant in the Natural History Museum, who could do pathological and anatomical museum work, who could inject, mount wet and dried specimens, articulate, and the like. A wage of £80 would be required to secure and retain the services of such a man. The grants which I venture to suggest for these museums, the Anatomical and Pathological, are £100 for each, including attendance. Supposing £40 to come off each for a skilled attendant, that would leave only £60 for each for purchase of specimens, glass, spirit, and other expenses. That will not meet the expenses of the Anatomical Museum, nor, I fear, of the Pathological Museum under a Professor of Pathology; but with a grant of £100 each, the University may be left to do the rest. I hope that it is not out of place in me to urge a public grant for the Anatomical Museum, for although it has been a work of my own, I feel that my work in it has gone for the benefit of the school and of my successors. I regard the due maintenance and progress of such a museum as a most suitable object for a public grant, both from the medical school and the scientific points of view; and I regard the extension and maintenance of the Pathological Museum as very important to the future of our medical school. In regard to University buildings, Aberdeen is exceptionally placed. The union of the two colleges in 1860, and the removal of the Arts and Divinity classes to King's College, left room for the Medical classes and the natural history department. When I went to Aberdeen in 1863, there were still several lecture-rooms standing unused, and they were, on my suggestion, converted into laboratories. All the departments, indeed, had sufficient room, except the anatomical, the accommodation for which, I must say, was very deficient, and it was found necessary to make additions to it. My dissecting-room still remains as I found it, and is adapted for about half the number of students I now have working in it daily. The enlargement of this room is urgently needed, both on the score of working space, and on the score of health. There is just space enough at the back for its enlargement; and if that were done, as I earnestly trust it will be without delay, the anatomical department will be about as well provided for as the other departments are. I know of no other extension of our buildings at present required, but several internal changes are still required. Among these I may mention the enlargement of the examination hall by removal of a partition wall, and the provision of some laboratory fittings. Some day in the future, no doubt, Marischal College will require extension, and I should like to state my view of how this should be accomplished. One often hears the opinion expressed that Marischal College buildings should be 'opened up;' that is, that some half dozen houses and shops between it and the street should be cleared away. But behind these, again, there is the Greyfriars' Church, an old and very plain building, which also would require to be removed, and the result would be merely to display the college without doing it any good. The college is closely hemmed in on all four sides, so that in whichever direction additional accommodation is sought, there must be considerable preliminary outlay. My view is, that the true plan is not merely to clear away the houses and the old church in front, but to complete the quadrangle by a college frontage a little way back from the street, at the same time carrying forward the two wings to meet it. The extension of the wings would give the increased accommodation for the Pathological and Natural History Museums which will some day be required; and to the new frontage I would transfer the natural philosophy department from King's College. I think that not

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having natural philosophy beside the other sciences in Marischal College was the one mistake of the arrangements at the time of the union of the two colleges. It would have made Marischal College complete as a school of the physical and natural sciences. I may say again, that I look on the union of the two colleges in 1860 as a most beneficial measure, not only by having given Aberdeen a University properly so called, but as having benefited even the more immediate town by giving it in the Marischal College of to-day, not merely a flourishing school of medicine, but a great school of modern science, the value of which, in the very midst of the city, will be more fully appreciated when the sciences take their place as part of general education. And I regard the slight inconvenience of students having to walk a mile farther for their Latin and Greek and metaphysics, as nothing compared with the above-mentioned advantage to the University and to the city. But it is unfortunate that natural philosophy is not located beside the other physical sciences, and I hope this will be rectified when the day comes for extending the buildings of Marischal College. The rooms for natural philosophy at King's College offer, in my opinion, all the space that is likely ever to be required there for a physical laboratory, if they were properly fitted up for that purpose. Some building, which need not be expensive, of the nature of a shelter for students between classes, is required at King's College, but otherwise, the buildings of King's College are sufficient not only for the present requirements, but may easily accommodate the new professors suggested in Arts. The present class-rooms there are unused during half the day in winter, and during the summer session they are given up to silence.

7853. Is there no other topic on which you would desire to say anything?—No other. I only hope that Government will be liberal to us. I should like to ask the attention of Government to the way in which the German Government is treating University education. It is not that we professors wish to put money into our pockets, but we must be provided with buildings, libraries, museums, assistance, laboratories, apparatus, and so on; and no doubt also, professors will have to be better paid, if it is desired to have men of the right kind, in these times of increased expense and of pecuniary attractions outside the Universities.

Adjourned.

NOTE.—With reference to the table under Question 7802, Professor Struthers subsequently sent to the Secretary the following letter :—“ University of Aberdeen, May 25, 1877.—SIR,—With reference to the table showing the attendance in the several Faculties of the University, which I gave in the course of my evidence before the Universities Commission, I am desirous of making an explanation in regard to the difference between the figures in the column giving those “attending in two Faculties,” and the figures in the corresponding column of the official return subsequently sent through the Senatus. The numbers in my table are those of students attending in two Faculties *at the same time* during the winter session, while in the official return we have, in addition, given those who had been in the Arts Faculty in winter and became Medical in summer. In the official return we have also added a column giving those who were new to Medicine in summer, thus enabling us to show the total number of individuals studying Medicine in each year; while at the time I gave my evidence we had simply taken the number attending in winter and the number attending in summer. These numbers show that, in the rough estimate given in my evidence of the total number of students in Medicine, I rather underestimated the number. I may mention that the official return was very carefully prepared, under my direction, and that I desire the table contained in my evidence to be considered as superseded by the more complete official return. I shall feel obliged if this explanation can appear together with the documents printed by the Commission.—I am, Sir, yours faithfully,

‘JOHN STRUTHERS.’

‘Professor Berry, Secretary, Scottish Universities Commission.’

SATURDAY, 2d December 1876—(Forty-Fourth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*
SIR WILLIAM STIRLING-MAXWELL, Bart.
DR. JOHN MUIR.
ARCHIBALD CAMPBELL SWINTON, Esq.
JAMES ALEXANDER CAMPBELL, Esq.

Professor SIMPSON, examined.

7854. *Mr. Campbell Swinton.*—You are Professor of Midwifery and Diseases of Women and Children, in the University of Edinburgh?—I am.

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7855. You were appointed in 1870?—Yes.

7856. Have you any observations to make on the constitution and powers of the University Court, or the functions of the General Council?—Not specially.

7857. The subject on which we should particularly wish to hear your views, in the first instance, is the course of study and regulations for graduation, especially in your own faculty?—First of all, I should state that I think that improvement might be made in the way of inducing medical students to pursue an Arts course before beginning the study of medicine, if the Arts course could be modified so as to include some of the sciences as subjects of examination for an Arts degree.

7858. For example, which sciences would you include in that?—Already in the Arts graduation there are some subjects optional to students who desire to take honours as M.A.—the natural sciences. I refer to p. 116 of the present year's Calendar, where geology, zoology, chemistry, and botany are mentioned.

7859. Do you think all or some of these might be included?—These might be included as alternative with some of the present subjects that are required for graduation in Arts.

7860. When you speak in that way of graduation in Arts, do you mean the present degree of M.A., or are you pointing at an inferior degree, such as that of B.A.?—It might be either the one or the other.

7861. But do you think that by including these scientific subjects you would induce intending medical graduates to go even the length of the M.A. degree?—I think so. At present, for example, two brothers are beginning their University course, the one with the intention of becoming a theologian, and the other with the intention of becoming a practitioner of medicine. They are both anxious to get the best possible training before entering upon their special subjects. They both want to take degrees in Arts. Well, the present M.A. graduation is very suitable for the one who is to be a theologian, while there are some elements in it not specially helpful to the one who is to study medicine.

7862. I suppose you think that by including in the course of study for the Arts degree the subjects you have mentioned, you would, to a certain extent, diminish the pressure of study for the medical degree?—Yes; and it would give additional scope for the study of subjects during the medical curriculum proper.

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7863. Do you think that any considerable number of medical students would, by such inducements as you point at, go on to the Master's degree before beginning their special medical studies?—I should think so; and I think we ought to put every facility in the way of inducing them to take such a course of study.

7864. *Dr. Muir.*—Which of the departments required at present would you consider indispensable?—One of the classical languages, one of the philosophies, mathematics, and natural philosophy. I would not, however, insist on one of the philosophies; science might take the place of it.

7865. *Mr. Campbell Swinton.*—And you would be content with one of the classical languages in an alternative course such as you point at?—Yes; all the more if there were a preliminary entrance examination for University study.

7866. Do you not consider a certain knowledge of Greek indispensable or very desirable for a medical man?—Desirable, but not indispensable.

7867. Then the general tenor of your opinion on that point is, that you would give greater elasticity to the subjects of the examination in the Arts degree?—Yes; with the view of inducing intending medical students to take it.

7868. And allow certain of those scientific subjects to come in in place of others that are now in the curriculum as an option?—Yes.

7869. *Dr. Muir.*—There is at present a general entrance examination for medical students. Would you put your proposed course in place of the present entrance examination?—No, not for all; because not all medical students could afford to go through that preliminary full training of the Arts course; but it would induce students oftener to take an Arts course, if it tended more directly to help them in their medical studies.

7870. *Mr. Campbell Swinton.*—Do you consider your present medical preliminary examination suitable and sufficient for those who do not go on to the Arts degree?—Yes.

7871. *Mr. Campbell.*—There is no one subject in the present course that you think is specially a hindrance to medical students taking the M.A. degree, but that the requirements altogether are rather severe?—The requirements altogether are too high in directions that are not giving them special training for their after-work in life. It is very good training for a theologian, but not for a man who is to be engaged in medical practice.

7872. *Mr. Campbell Swinton.*—Have you any other observations to make on the subject of the course of study and regulations for graduation?—I think it is very important that the student should get over his examination in the subjects of the first professional examination in botany, chemistry, and natural history, before the second winter session. I think provision should be made for passing in those subjects, if a student is ready for it, before he begins his second winter course.

7873. That is with respect to the case of men who have not graduated?—Quite so,—for students entering under the present conditions. I would allow these subjects of examination to be taken at the end of the first year of medical study, or at least before the beginning of the second. I think also there might be some re-arrangement of the different professional examinations, so that students might be allowed to pass in subjects which they have already studied before entering on the study of new departments. For example, the examination in physiology might be passed before the third winter session instead of at the end of it.

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7874. The tendency just now being, that men who ought to be preparing for the subject which they are studying are obliged to continue to keep up their technical knowledge of the subjects which they had studied in the previous year, and in which they ought to have passed an examination?—Quite so; and I think that if arrangements were made for these examinations being held early in October, the students could work up the subjects and be prepared to pass at that time, before entering on their winter work.

7875. Is there any distinct examination for the degrees of C.M. and M.B.?—No; the very same examination entitles a candidate to the two degrees,—the only difference being, that a candidate who desires the diploma of C.M. has to pay an additional five guineas.

7876. In point of fact, they all do take the double qualification?—Not all.

7877. For what purpose is it necessary or desirable that they should take it?—The double qualification is required for holding Union and other public appointments.

7878. Then you would have a distinct examination in surgery for the C.M. degree?—Yes; it ought certainly to be instituted.

7879. Distinct from that for the M.B. degree?—Quite distinct in the department of surgery and surgical anatomy.

7880. Have you any other remarks to make upon this subject?—I think it would be desirable to have an authorized order of study.

7881. Just now is it left very much to the discretion of students in what order they attend the different classes?—Entirely.

7882. Do they generally adopt a pretty uniform order?—In general they do.

7883. But you think it better that there should be an authorized order laid down?—Yes.

7884. *Mr. Campbell.*—Would there be any difficulty in laying down an order that would be generally suitable?—Not much; the student could easily adapt himself to the order. For the most part they do adapt themselves to the suggested order that is given in the Calendar.

7885. *Mr. Campbell Swinton.*—But if your idea were carried out, with some of them taking the M.A. degree and others not, there would have to be different orders for those who had taken that degree and for those who had not? Some would pass in some of the subjects of the Arts course?—In that case they would all be made to pass their Science examination before beginning medicine, and that is the important thing to get done.

7886. *Dr. Muir.*—Do some of your medical students take part of their course in other Universities or institutions?—They do.

7887. In that case you would not be able to enforce uniformity throughout, if the systems in those institutions were different?—They would be always able to show cause why they deviate from the usual course, and on this matter the faculty would give a dispensation.

7888. *Mr. Campbell Swinton.*—And the classes of the extra-mural lecturers are the same both in name and in subjects as those in the University?—Yes, and usually in time.

7889. Do you think that any new professorships or lectureships are required in your faculty?—No; I don't think that medicine is ripe for the institution of any new chair.

7890. Are there any branches of the science in which it might be desirable to have lecturers?—The only subject in which I think there is

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some reason for thinking it might be desirable to have a lecturer would be the subject of insanity, for this reason, that our graduates, the day after they get their diploma, have a legal right to send into an asylum any person whom they please to consider insane.

7891. Is there any professorship which naturally or necessarily includes mental disease within its teaching?—The Practice of Medicine does, and Forensic Medicine takes it up also in its legal relations.

7892. But you think the subject is too important and extensive to be treated by those professors sufficiently, considering the other subjects they have to teach?—I think so, unless the Professor of the Practice of Medicine can engage to give a special course of instruction.

7893. Is the present mode of teaching clinically satisfactory?—As at present conducted it is; only it depends at present on arrangements that may be made within the Faculty of Medicine, and my opinion is that the teaching of clinical medicine should always be attached to four of the chairs, viz. the Practice of Medicine, Pathology, Materia Medica, and Midwifery and Diseases of Children.

7894. Do the holders of the chairs you have specified not teach clinically now?—At this moment one of them does not; the Professor of Materia Medica does not teach clinically. He did do so at one time, but he does not just now.

7895. Any professor in the Medical Faculty is entitled to teach clinically?—Yes.

7896. Even the Professor of Botany?—Yes; and he did it at one time. I think it should be arranged that two of those professors should be on duty in the Infirmary at one time—say the Professors of the Practice of Medicine and of Pathology—so that the clinical class might be divided between them, and neither of them have too many students collected at one time in one ward. Then the Professor of Midwifery and Diseases of Women should once a week have one of those sections of the class in his ward, and deliver, as he at present does, every sixth lecture in the clinical course. The clinical class would in that way be of a manageable size, and all the students would get due instruction in all the kinds of cases that would be likely to meet them afterwards in practice.

7897. Are the present provisions in Edinburgh for clinical teaching of midwifery sufficient or satisfactory?—Utterly insufficient and unsatisfactory; in fact, there is no direct provision in connection with the University for the teaching of midwifery clinically.

7898. Still, if the Professor of Midwifery is one of those who by the arrangement in the faculty take a little teaching in the Infirmary, why is it not satisfactory?—That is simply for diseases of women, not for midwifery—not for labour cases. At one time in the end of last century there was a ward in the Infirmary set apart for the use of the Professor of Midwifery, with labour cases.

7899. Is there no such ward now?—That ward was closed on account, I believe, of the want of funds; and about the year 1793 the then Professor of Midwifery, and others associated with him, started the Lying-in Hospital, which was to be used for the benefit of lying-in women, and for the tuition of nurses and students. As originally constituted, the University of Edinburgh had considerable influence in connection with the Maternity Hospital. The Principal of the University, for example, and the Professor of Divinity, were amongst the extraordinary managers of it, and (I quote from the laws, orders, and regulations of that hospital in 1793 :) 'the Professor of Midwifery for

the time being shall be the ordinary physician to the Hospital.' The medical work of the institution was therefore done under his hand. He had associated with him extraordinary and assistant physicians, but he was the ordinary physician to the Lying-in Hospital. He had thus the opportunity of teaching clinically. Since then—I don't know at what time, or how—the constitution of the Maternity Hospital has somewhat changed, and when I first held the chair, all the offices of ordinary physicians to the Maternity were filled up, and it was only by special grace of the directors that I was enabled to receive an appointment as an ordinary physician.

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7900. Do you in point of fact teach clinically in the Maternity Hospital?—Only to a limited extent. Since that time the directors have changed the law so far that the Professor of Midwifery is to be *ex officio* always one of the ordinary physicians, of whom there are now four. That means that the Professor of Midwifery is for three months of the year the ordinary visiting physician at the Maternity. So he has only the opportunity for three months in the year of teaching clinically whatever students please to take out the Maternity attendance ticket.

7901. What remedy would you suggest for that?—To begin with, the University should see to having an interest in the direction of the institution. The names even of University officials had fallen out for a time from the list of managers of the institution. Within the last few years the present very active secretary and treasurer of the institution has got the Principal to allow his name to appear in the list as one of the vice-presidents, and he has got Sir Robert Christison and Professor MacLagan to appear in the list of extraordinary directors. But that does not imply any active interest in the affairs of the Maternity; it was not as University officials, but simply as men of position, that their names were placed on the list.

7902. It is a charitable institution?—It is a charitable institution just as the Infirmary is, and were the University to take an interest in it such as it does in the Infirmary—regularly appointing a manager, whom they would recommend to be received on the Board of Directors—the other directors would, I am sure, be glad to have a University representative, and perhaps an arrangement might be brought about whereby the University could have some such share of the work as it has in the Infirmary, where all the year through, both in surgery and in medicine, the University professors are teaching clinically.

7903. *Dr. Muir.*—Is there no prospect of the Lying-in Hospital being connected with the Infirmary when the new buildings are occupied?—It is a very doubtful prospect. It has been mooted.

7904. *Mr. Campbell.*—Is such a thing done in other places—I mean having a lying-in ward in a general hospital?—In connection with most of the foreign schools, the Professor of Midwifery is the director or ordinary physician of the lying-in institution of the place.

7905. But is it customary to have a lying-in ward in a general hospital?—No, and it is not the best arrangement; it would be better for the University to get a connection with the Maternity that would involve the attendance of the professor all the year round.

7906. *Mr. Campbell Swinton.*—Is the Maternity Institution a large institution, and able to afford sufficient scope?—That is the difficulty; the present Maternity is a poor institution, with but a small number of beds.

7907. Then the object would only be gained by a larger interest being excited in it, and a greater number of subscribers obtained?—Yes; and

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that is the way in which I think the University should put its shoulders to the Maternity wheel and help it.

7908. *Dr. Muir*.—Might not Government make an arrangement to contribute a certain amount of funds?—If Government would do it, that would be the best arrangement of all.

7909. Is there not an objection against a large maternity hospital? is it not maintained that there are special dangers connected with maternity hospitals?—Yes, but those could be averted by proper attention to construction and management. There will be a new maternity hospital built in Edinburgh. There are funds partially collected for it, and if Government gave an additional sum to it, with the proviso that the Professor of Midwifery in the University should have a ward allocated to him, it might be built on the best possible plan.

7910. *Mr. Campbell Swinton*.—Has there been a considerable sum raised with a view to that maternity hospital?—Yes; I think they have about £5000 from the Simpson Memorial Fund, and the money they got by the sale of the old building.

7911. *Dr. Muir*.—Will that be a second institution of the kind?—No; they are at present in a temporary house. I find that the amount of the funds they have already at their disposal is £5889.

7912. *Mr. Campbell Swinton*.—What sum would be required to make this a satisfactory maternity hospital?—At least £10,000.

7913. Have you formed any opinion as to the subject of the length of the University sessions, and whether any changes should be introduced in that respect?—I think the sessions should be preserved of unequal lengths—I mean, that we should have a longer winter and a shorter summer session; I think it is very important for the teaching of some of the subjects that the full prolonged winter course should remain in operation.

7914. And you are satisfied with the present arrangement?—The present arrangement, I think, is good.

7915. Do you approve of the system that at present prevails in regard to the recognition of extra-mural teaching, and the conditions under which that teaching is given?—Yes; as we have it in Edinburgh at present, it is good, and I think it ought to be arranged in all the Universities that the conditions which obtain in Edinburgh also be observed amongst them. For instance, in Glasgow University, when students who have had extra-mural courses in Edinburgh present themselves for graduation, they should be obliged to show that they have paid the same fees as our University students here pay.

7916. Is that not the case now?—It is doubtful if it is always followed out. We levy it, as regards the Glasgow students; we demand from the students of the Andersonian University that they shall have paid the same fee as they would have paid in the corresponding University class.

7917. *Dr. Muir*.—Have they no arrangements in Glasgow for clinical instruction in the different departments?—Not satisfactory.

7918. *Mr. Campbell Swinton*.—The actual fees in the medical classes in Glasgow are lower than they are in the University here?—They are.

7919.—Therefore, when our extra-mural student goes to graduate in Glasgow, all they require is that he should have paid at his extra-mural class the same fee that they require in their University?—Yes.

7920. You think they should require him to have paid the same fee that is charged in your University?—Yes.

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7921. Why should they require a higher fee in the extra-mural which they recognise, than they require in their own intra-mural classes?—Because in the one case it is the Edinburgh fee, and in the other case it is the Glasgow fee.

7922. If he is an Edinburgh extra-mural student, and has got his extra-mural teaching at Edinburgh, he must, if his teacher was recognised by the Edinburgh Court, have paid a higher fee?—Yes.

7923. Because the Edinburgh Court does not allow any extra-mural teaching except at the same fees that are charged in the Edinburgh University?—Yes.

7924. Therefore it is only if he comes from an extra-mural school other than Edinburgh, or from a teacher who, though teaching in Edinburgh, is not recognised by the University Court?—If recognised by the University Court, I mean.

7925. But if recognised by the University Court of Edinburgh he must have paid the higher fee?—If he intimates to the lecturer that he intends to take a University degree, he pays the higher fee.

7926. *Mr. Campbell.*—Does the extra-mural lecturer teach students at different prices?—He does.

7927. *Mr. Campbell Swinton.*—Even in Edinburgh?—Yes; students who are to get a diploma from one of the colleges pay a £3, 5s. 0d. fee; and extra-mural lecturers, though recognised by the University Court, continue to teach the £3, 5s. 0d. colleges students along with four-guinea University students.

7928. But you don't think there would be any hardship in the Glasgow professors requiring that there should be a higher fee paid to them by men coming from extra-mural teachers than they themselves charge for intra-mural teaching?—I think there should be an inter-University arrangement that the University fee of a particular city should be charged.

7929. Would that not be better served by the two Universities agreeing to charge the same fees?—That would be best.

7930. *Mr. Campbell.*—Have the Edinburgh and Glasgow fees been different for a long time?—So long as I have known them.

7931. What are the fees respectively?—In Glasgow three guineas, and in Edinburgh four guineas.

7932. *Mr. Campbell Swinton.*—Have you any remarks to make upon the emoluments and retiring allowances of principals, professors, lecturers, and others concerned in the teaching or examination of the University?—I think the most clamant case is with regard to the examiners in clinical medicine. The professorial examiners in clinical medicine are doing gratuitous work just now, and the hardest work that we have in connection with the University.

7933. Would you recompense them for that by a special fee in respect of their examinations, or by raising their salaries generally?—I think they should be paid a special fee as examiners in clinical medicine.

7934. You think all professorial examiners should be paid *quid* examiners?—In the Faculty of Medicine the professorial examiners are so paid at present. I get £100 a year as compensation for examination fees.

7935. That is in addition to your salary?—No; that is my only salary, and it was simply compensation for fees that I should have got as examiner. The amount of income, apart from class fees, which an examining professor got depended on the number of graduates, and the last University Act made provision for paying each professor annually

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£100 instead of the fees that would have been due to him for examining in his own department; but there was no provision for paying the examiners in clinical medicine.

7936. But, in point of fact, it was this, that as they were deprived of their fees as examiners they got additions to their salaries?—Yes; they got fixed salaries instead of the variable examination fees. But no salaries were provided for the clinical examiners as such; I have for the last three years assisted in the clinical examinations, but have received no compensation for that.

7937. Was clinical examination not part of the duty of the professorial examiners before the last Commission?—No; the clinical examining has been developed almost entirely since then.

7938. The Ordinances provided that the examinations in the various medical departments should be conducted so far as possible by demonstrations and objects placed before the candidate, and in medicine and surgery by clinical demonstrations in the hospital: therefore the Ordinances provided that there should be clinical examinations?—Yes; but provided no payment for the examiners.

7939. Why do you take it for granted that the addition which was made to the salary in lieu of examination fees did not include the fees they would otherwise have got for examining clinically?—Because, for example, the Professor of Natural History would get that compensation for his examination fees, but he was not asked to examine except in his own subject. The Professor of Practice of Medicine got that compensation for his examinations in practice of medicine, but no compensation for the additional work put upon him in connection with clinical examinations.

7940. It just comes to this, that the salaries of professors who examine clinically ought to receive some addition?—Yes, quite so.

7941. You gave in returns to the Duke of Devonshire's Commission with regard to the requirements of your chair?—Yes.

7942. And you refer us to those returns in connection with the deficiencies in the working of your chair?—Yes.

7943. You adhere to the opinions expressed in those returns?—Yes.

7944. Have you any other point on which you desire to say anything?—No; I think these are all.

7945. It has been represented to us that there is great deficiency in the University buildings of Edinburgh in respect of the utter absence of any conveniences for ordinary decency?—Yes, it is deplorable.

7946. And I suppose, as a medical man, you consider that a most grievous evil?—Yes, a crying evil.

7947. *Sir William Stirling-Maxwell*.—Has no representation ever been made on that subject to the University authorities?—Not that I am aware of.

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7948. *Mr. Campbell Swinton*.—You are Professor of Engineering in the University of Edinburgh?—Yes.

7949. When were you appointed?—In 1868.

7950. Have you formed any opinion which you would like to express as to the constitution and powers either of the University Court or the General Council?—No; I have not taken much interest in either of those subjects, and have no opinion to express.

7951. Your chair belongs to the Faculty of Arts?—Yes.

7952. Have you any opinion to express on the course of study and regulations for graduation in that faculty?—I wish to say that I am satisfied with the regulations which have been made by the faculty for the course of study of the engineering students, and that I am averse to the creation of any new faculty, such as a Faculty of Science, because I do not see, first of all, that it would answer any special requirements—I have never felt the want of any such special faculty; and secondly, that if it were created it would be a weak faculty, because we could not withdraw the chief subjects—mathematics, natural philosophy, and chemistry—from the faculties to which they necessarily belong; so that the Faculty of Science would be composed of specialists, unless the professors of the subjects I have named belonged to two faculties, which I think would hardly be convenient. At any rate, I see no necessity for the institution of a Faculty of Science, judging by my own case.

7953. The degree that is granted by the University of Edinburgh in engineering is one of the Science degrees?—It is one of the Science degrees, and questions relating to that degree are settled by the Science Degrees Committee, which includes members of more than one faculty. That committee manages all the business, to the satisfaction, so far as I can see, both of professors and students. I may say that I think the degree has been useful; it has stimulated study among the students.

7954. Can you give us any idea how many students have taken the degree?—Seven. It has the effect of making three or four students in each year work somewhat harder and more consistently than they would otherwise do.

7955. I suppose we shall find in the degree whether any or what subjects are dropped to make way for engineering?—I think no subjects are dropped to make way for engineering. There are several degrees in Science granted by the University. For each of these a special curriculum is devised. In each case there is a preliminary examination, ensuring that the student shall have a fair education,—the same education, in fact, that is required for a medical man; and then there are two examinations each upon three subjects, which are specially directed to test the knowledge of the candidate in the particular department.

7956. And I suppose the attendance on classes is regulated in somewhat the same way?—A certain number of classes are obligatory.

7957. In short, there exists now in the Science degree in Edinburgh very much that kind of bifurcation, as it is called, which many witnesses recommend us to adopt with regard to the Arts degree?—That does exist undoubtedly. A man may take his degree in natural science or in engineering or in mental science. There is not only a bifurcation, but a polyfurcation.

7958. Have you formed any opinion as to the institution or continuance of entrance examinations?—I feel some delicacy in expressing an opinion with reference to the large classes, such as the class of humanity; but, with reference to my own class, I should deprecate any entrance examination. I think it would restrict the numbers attending the class considerably, and without any corresponding advantage that I can see. I have students of very different kinds,—students who come fairly well prepared from good secondary schools, and who have received some part of their University education; and I have other students who have been very imperfectly educated, who have occasionally, though not very frequently, been skilled artizans, as, for instance, masons; and these men by dint of extremely hard work do derive a certain benefit from the

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class, and now and then take a good position in the class. I have one case in my mind especially; and I should be very sorry to shut these men out.

7959. But those men, not having attended other classes in the University, cannot take the degree?—They cannot take the degree unless they attend a considerable number of classes in the University; but I may say that the object of taking the degree sometimes induces them to attend a large number of classes in the University. I don't think that any one man of that class has yet taken the degree. One man intended to do so, and worked two years with that object, but he got a good appointment for which he was thoroughly well qualified, and is now an engineer in Dundee. He, I presume, would have been shut out, in the first instance, by an entrance examination; and since I came here I have met with a considerable number of young men who seemed only to have formed the desire for information after they had reached the age of seventeen or eighteen. Judging by what they knew at that age, they had either had very slight opportunities, or, as I think, had really never cared much to learn up to that time; but at that age the desire to advance themselves and acquire knowledge comes to them. These men could not be provided for by any system of secondary education. They would be ashamed to go and mix with children, but they are not ashamed to come to the University, and I should be extremely sorry to see that class of men shut out. I speak with confidence of my own class, and by analogy I may speak of the others.

7960. I suppose that that class of men could not derive benefit from your lectures unless they had some knowledge of mathematics?—They must have some knowledge of mathematics. At the Watt Institution they are able to acquire a sufficient knowledge of mathematics to benefit considerably, and also by private tuition.

7961. And such an institution as the Watt Institution they would not be ashamed to attend as they would be to attend a school?—No; they go to evening classes where there are men of all ages, and they are not ashamed to go there.

7962. Do you think any new professorships or lectureships are required in the University?—There are several obvious openings in the University. I may mention modern languages, but I have no special right to speak upon that point. I only wish to draw attention to the condition of one class closely allied to my own, which in fact I have established in the University, viz. the class of mechanical drawing.

7963. By whom is it taught?—By my assistant, and from the general University funds I have a grant of £40 which helps me to pay that assistant.

7964. That grant is given to you nominally for your assistant?—Yes.

7965. And it is by your good will that you apply it to this particular purpose?—Yes. I may say that I would not have asked for an assistant if it had not been for the purpose of teaching that class. The sum which I get from the general funds would be quite insufficient to provide a teacher of the kind necessary; but what I do is, that I engage as an assistant in my general engineering business a good draughtsman. I require that draughtsman in my own business. I make it a part of his duty that he shall teach in the University from ten in the morning till two in the afternoon in the winter session, and in that way I have secured a competent man and good teaching. But this teaching rests entirely upon my own discretion. If my professional business fell off, or if I did not care to prosecute it, I should not be able to provide that teaching;

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and I have more than once thought of discontinuing the class because at this moment I am keeping that man at a loss—I have not work for him. I think the class is an eminently useful one; indeed, I do not think the course of engineering would be complete without it, and yet it depends entirely upon the question of my being practically engaged in engineering, and so being able to afford to keep this man.

7966. Then the remedy for that would probably be the institution of a lectureship of mechanical drawing?—I think the institution of a lectureship of mechanical drawing is really necessary.

7967. What salary would be necessary to secure a suitable man?—£120 a year would secure a first-rate practical draughtsman—not a certificated teacher, but a man who could make his bread by drawing in a drawing office. That is the kind of person who should fill the lectureship; and I would suggest, that if such a lectureship were created, it should be tenable only for five years. If it were held, say, for life, the man would infallibly degenerate. You could not get a first-rate man to remain for £120 a year, but you could get a very good young man who wished perhaps to attend some classes in the University, and who could not make more than £3 a week as a practical draughtsman; and if he were put under the general direction of the Professor of Engineering, I think that sum would provide the man who was required.

7968. Could you for that sum command his services for the length of time for which you would require him?—We could command his exclusive services, and I would make use of him entirely for the purpose of the University. His duties should be, in the first place, to teach the drawing class for (say) four hours in the day, because a student must be able to come in at any time; they cannot all come at one hour, and must be able to draw for two or three hours consecutively. Then he should also have the duty of preparing diagrams of interesting engineering subjects. Being himself a draughtsman, he could prepare those diagrams; and lastly, he would act as assistant to the Professor of Engineering, and might also teach or assist in teaching the class of practical surveying in the summer.

7969. Have you a class of practical surveying?—Yes, which I am not bound to teach, but which I either teach myself, or, if I am absent, my assistant teaches it for me. It is another voluntary class which I have instituted.

7970. *Dr. Muir.*—Could you secure such a man for £120 a year?—If you give me the appointment, I can. If you give the appointment to the Senatus, I do not think you will get him; but there are plenty of young men who would come and work for three or four years for a professor, and whom he could choose and whom he could get for £120.

7971. *Mr. Campbell Swinton.*—Do all the members of your class attend your assistant's drawing class?—No; it is a smaller class necessarily than my own, because my class is attended by a considerable number of students who have already learned drawing either in works or in the offices of civil engineers. Those who attend it pay me separate fees, but those fees do not cover the expenses.

7972. In the case of the lectureship you propose, would you allow the man to charge fees besides his endowment?—If you gave him an endowment of £100 a year and the fees, that would be quite sufficient.

7973. How many students does your class generally consist of?—About thirty students.

7974. And the class you spoke of in the summer?—It is much smaller; it generally consists of ten or twelve students.

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7975. Are they chiefly the same men?—Some are the same; I think they are chiefly the same.

7976. It is a voluntary class which you have established yourself?—Yes.

7977. Have you any funds provided for your use for models and apparatus?—Yes; there is a small fund, amounting, I think, to about £40 a year, which is devoted to class expenses, and to the preparation of models and apparatus.

7978. Is that included in the foundation of the chair?—Yes; by Sir David Baxter. But that sum does very little. It enables me to provide some diagrams and a few rough models. A very much larger sum than that would be necessary if any considerable museum of models were to be provided. I am not prepared, however, to ask the Commission to make any considerable addition to that sum. My wish is that these models should be provided in a totally different way. I cannot see any reason why the class of engineering should not benefit by the very fine collection of models which is close at hand in the Museum of Science and Art.

7979. Have you and your students not free access to that museum?—We have access to it, but I am unable at present to bring any object whatever out of the museum into my class. Now, if I wish to speak of a certain quality of iron or a certain kind of brick,—I may only wish to make allusion to it for two minutes,—I cannot break off my lecture in order to take my students down to the museum and say, 'This is the brick I mean.'

7980. Is there any rule of the museum under which they are prohibited from lending these articles for the use of a University professor?—At present there is an absolutely stringent rule that no article whatever shall quit the museum for such a purpose. When I came to Edinburgh at first, the director, Mr. Archer, was extremely obliging, and he told me I might make use of any articles in the museum, leaving, of course, an acknowledgment of having received them, and undertaking to return them in good condition. I found this permission very useful, especially for the drawing class, as under it different parts of machinery were obtained from the museum and drawn by the students. Unfortunately, some disagreement arose in a totally different department,—the department of natural history,—between the Professor of Natural History and the director of the museum. The result of that disagreement was, that a stringent order came down from headquarters in London that no objects were to be allowed to leave the museum, and Mr. Archer was obliged very reluctantly to withdraw the privilege he had given me. I believe he personally would not have the slightest objection to the renewal of that privilege, and even to the extension of it, because it is very clear that the full benefit to be derived from the museum cannot be obtained unless you do extend the privilege slightly; and the extension which I would ask is this, that I should have the right, or rather the privilege, of suggesting to the director articles which I think it would be useful for him to acquire. It is clear that the very same things which I find useful in teaching my class would be useful, in many cases at any rate, to the general public. I think it would be a benefit to the museum that they should receive suggestions from me. I have special knowledge of my own subject, and it is very probable that my suggestions would really be valuable to them. I do not think they would in the least object to receive those suggestions and to consider them, provided the whole power of the purse and the ultimate decision rested with them. I do not see my way to making any claim that they should as a matter of duty purchase things which I name,—that would be too much to ask,—

but I think that if I suggested a list of articles year by year, which I consider it desirable they should buy, it is very probable they would buy a considerable number of them.

7981. Being on cordial terms with Mr. Archer, do you never, in point of fact, suggest things?—I never have done so. That, it seems to me, would be interfering. If Mr. Archer asks me whether I have any suggestions to make, I can do it, but I should be on a totally different footing if it were an acknowledged privilege that he should be instructed by his department to inquire whether I had any suggestions to make, and that the object of these suggestions was that the museum might be made useful to the University. My position would then be a totally different one.

7982. At present is there not rather a tendency not to make the museum as useful to the University as it ought to be, especially as its origin was connected with the University?—I personally have not met with any tendency of the kind. I do not know what may be the case in other departments, but, so far as I can judge, the director has always shown the greatest wish to meet my views. I have no complaint to make.

7983. In point of fact, do you ever take your students into the museum to show them articles that are there?—Very, very seldom. The great majority of them have other classes to attend, and I should either have to cut my lecture short, or infringe upon some other classes.

7984. Of course it is open to them to inspect the articles themselves?—Yes. But it seems to me a mere waste of public money that I should have a grant for the purpose of collecting a museum of engineering models, materials, and diagrams, when there is a museum of that very kind within 200 or 300 yards of my class-room. Moreover, I could not possibly ask for such sums as are granted by the Science and Art Department.

7985. Speaking of your own department, you have probably no remarks to make on the subject of extra-mural teaching?—None whatever. I, of course, could not oppose it. If any man chooses to teach outside for the fees, let him do so,—I have not the slightest objection. I have my endowment, and if I lose a few fees it is no great hardship; and any competition of that kind would simply tend to keep me up to the mark. [*The witness subsequently gave the following explanation in reference to this part of his evidence:—*‘By extra-mural teaching, I did not understand teaching conducted by individuals outside Edinburgh. It has since been suggested to me that extra-mural teaching may mean teaching by a man in Japan. I should wholly object to recognise teaching conducted by *individuals* in remote places in other towns as qualifying for a degree here. I would only recognise an individual teacher who, like myself, worked under the general supervision of the University.’]

7986. And you would not object to the teaching of such a man if acknowledged by the University Court as qualifying for a degree?—I should not object.

7987. I think that what you have already told us probably embraces the subject of one of the heads of inquiry here, viz. as to the condition of the University buildings, library, and museums?—Well, the condition of my class-room is very bad. It is no better than an ordinary room. There are no special appliances for showing experiments, and hardly any appliances for showing diagrams.

7988. Have you a room to yourself?—No; it is also used by the Professor of Physiology, so that everything has to be cleared out of the room at the end of each lecture.

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7989. I suppose it is equally inconvenient to the Professor of Physiology?—Yes.

7990. But when the new buildings are erected, that will be obviated?—That will be obviated.

7991. He will go there, and you will remain where you are in the present buildings?—Yes, probably. Considerable alterations ought to be executed inside these buildings. My room is the old natural history class-room, and I think the natural history class is still taught there, so that three professors use the one room. Then, I have no retiring-room.

7992. Nor the Professor of Physiology?—I think he has.

7993. But not adjoining the class-room?—No, not adjoining the class-room.

7994. It has been represented to us that there is one very remarkable want in the present University, viz. the want of retiring places for the students, and of conveniences for decency?—Yes, it is really shocking. There is a urinal, but it is very small.

7995. And nothing else?—No; there are no water-closets.

7996. *Dr. Muir.*—Could not the Senatus have arranged about that by fitting up some place outside?—I should think they might, but I do not know that the suggestion has ever been before them.

7997. *Sir William Sirling-Maxwell.*—Have any representations been made to the professors on the subject?—I have not heard any.

7998. *Mr. Campbell Swinton.*—We have been told that the result is that the students resort to places such as taverns?—It is a very striking want, and perhaps we have not done our duty regarding it. Probably the reason why it has not been remedied is the smallness of the balance of the fund for general purposes. There is one want to which I wish to draw the attention of the Commissioners, viz. the want of sufficient funds for the purchase of the necessary periodical literature in my subject. In engineering there are very few books published, and the general funds of the University are amply sufficient for the purchase of books, and any book that I require is at once purchased; but I am met with a direct refusal when I propose the purchase of any periodical publications, because they say it is a permanent drain on the funds, and there are so many that we cannot afford it. Now, as it happens, it is the periodical publications that are the most valuable publications in my particular business. All engineering publications are old and out of date in fifteen years' time,—all specialist publications. If there is a work upon a steam-engine, it is quite antiquated in fifteen years.

7999. Would it be necessary that those publications should be preserved, or merely that the students had the reading of them?—It would be very desirable that they should be preserved, and it would be a very expensive matter. There are periodical publications in France, Germany, America, and England; and unless these were collected and kept, we should not have a good engineering library.

8000. That would involve a very considerable sum?—It would; but if I were asked what the expenditure was that would be most directly beneficial to the class,—after the appointment of a lecturer on mechanical drawing,—I would say a fund for periodical publications.

8001. What sum would be sufficient?—A hundred pounds would be spent with advantage, but about half that sum would provide ten most important periodicals. It must be very much the same thing in connection with the medical expenditure—that a great portion of the money goes in medical publications—but the Medical Faculty is strong enough to secure that.

8002. *Mr. Campbell.*—Would these publications go to form a special

library for your class?—They would go into the general library; but by the very simple plan of having a separate catalogue made and kept by my assistant, the engineering students would at once know what in the library was of special interest to them.

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8003. There are a considerable number of such books?—Yes, there are.

8004. Do they study these in the students' reading-room?—Yes, especially the books of reference; but others they are allowed to take home. Many institutions, I may add, give us their transactions.

8005. And your students make a considerable use of that privilege?—Yes, certainly.

Professor KNIGHT, examined.

8006. *Mr. Campbell Swinton.*—You are Professor of Moral Philosophy in the University of St. Andrews?—I am.

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8007. You were appointed in the present year?—Yes.

8008. Previously to that you held a ministerial charge at Dundee?—I did.

8009. You are a member of the General Council of St. Andrews?—I am so now, as a professor.

8010. You were not previously a member, and therefore, I suppose, you have not much to say with regard to the General Council?—I have not; and from my recent connection with the University, I do not presume to offer evidence on the subject. I shall confine myself to the local question of the extension of the University influence in Dundee, and to the question of the revival of the B.A. degree.

8011. We have been already told of the existence within the University of a desire to do something in the way of assisting Dundee to obtain for its inhabitants University culture. Does the same feeling exist in Dundee? Is there any anxiety there to have the benefits of University teaching extended to the inhabitants?—I think that during the last four years there has been a growing desire for higher education in Dundee; and this has been awakened to a large extent by the efforts made by St. Andrews to extend its influence in the community. That desire has been growing very markedly within the last four years.

8012. When the Tay bridge is built, what will be the distance, in point of time, between Dundee and St. Andrews?—Half an hour or thirty-five minutes, by express train.

8013. Taking that into consideration, and supposing there exists a desire for the benefits of University education amongst the inhabitants of Dundee, would that desire be best served, or most likely to be served, by the young men from Dundee coming to St. Andrews to attend the classes, though continuing to reside in Dundee, or by the removal of some of the St. Andrews chairs to Dundee?—I think that, with the increased facilities afforded by the Tay bridge and a rapid train service, a great many young men in Dundee, residing with their parents there, will take advantage of the Arts classes at St. Andrews. I confidently expect a large increase in the Arts classes when the bridge is opened; but, with a view to meet the educational wants of the district, it would be desirable—almost essential—to have a transfer of the Scientific Faculty to Dundee, that faculty being supplemented by additional chairs, which, I think, the community of Dundee will come forward and found if they get inducements to do so, i.e. if their efforts are supplemented by extraneous aid. I consider that the educational wants of the district will best be met by the establishment of a Science College in Dundee.

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8014. How many classes would you include in the category of science classes which you think might be transferred to Dundee?—As to the kind of college most suited to Dundee, I am of opinion that it should be primarily a college for the teaching of science, with the addition of other subjects which represent the modern rather than the ancient ideal of culture—such as history, political economy, and modern languages; but that it should in no sense be a rival institution, competing with the University of St. Andrews. I advocate this, not on the ground of possible injury to St. Andrews, but for the purely academic reason that it would involve a waste of existing educational resources. The Arts Faculty in St. Andrews would be deprived of one means of fulfilling its natural function in the East of Scotland were a new college set up in Dundee teaching the same subjects as are now taught at St. Andrews. Instead of supplying an existing want, such a college would only weaken an existing institution, by diminishing the supply of students that now come from Forfarshire to St. Andrews. If we may judge by the analogy of other centres of industry where Arts colleges exist, the classes would be recruited mainly from the surrounding country districts (where the best scholars in the parish schools generally look forward to a University training), and not from the population of the town, where the majority of young men enter early on a business career. Teaching in Arts, therefore, being supplied by an existing faculty only a few miles distant from Dundee, it appears to me that educational effort should be directed, in the first instance, to increase its efficiency, and not to plant a rival to it. Even if such a rival institution were founded, I doubt if its academic character could be maintained, while Scotland is already fully supplied with teaching in Arts at her four Universities. On the other hand, a large industrial community affords a natural centre for the teaching of science, pure and applied. Considerable interest in science has been recently awakened in Dundee, partly through the lectures of the St. Andrews professors last winter, partly through the energetic work of a local Naturalists' Society, and partly from the scientific spirit characteristic of the age. I believe that a science college in Dundee would be very largely attended, and it would be a distinctive addition to the educational machinery of Scotland. It would have a special character of its own, and would probably attract students from a distance. If it grew to be a great school, both of theoretical and applied science (which it might very easily do), it would have a place and function in Scotland corresponding to the Polytechnicum at Zurich. As to classes and curriculum in such a college, I do not presume to draw up a complete scheme; but the classes should include mathematics and natural philosophy (or experimental physics), chemistry, natural history, biology (or physiology), and engineering. I think it would be well to commence with a minimum, as it is very easy to extend, when once the foundation is laid. It seems to me that the professorships of chemistry, natural history, and physiology existing in St. Andrews might with advantage be transferred to Dundee. I would not exclude literary instruction from the Dundee college,—history and English literature, with modern languages and political economy, might be taught; and instead of the ordinary logic, there might be a class for the teaching of the principles of science, or the philosophy of induction. There might also be tutors appointed to teach Latin and Greek, and to prepare those students who wished to take the B.A. degree for entering the second year's classes at St. Andrews. As to the bearing of the instruction in the Dundee college on the obtaining of a degree, this is a more difficult question. Supposing the B.A. degree to be revived, it seems to me impossible for the University to grant either that

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or the M.A. without study at St. Andrews. But the degree of Bachelor in Science might be obtained after attendance at the Dundee college alone by some such plan as this:—Supposing a student to take the first year's classes of the B.A. course at Dundee (where they could be taught by tutors), he might thereafter qualify himself for the B.Sc. by taking the science classes in Dundee, omitting the philosophy required at St. Andrews, and taking instead the class on the principles of science, were such established in Dundee. Of course, a student might first take the B.A. at St. Andrews, and finish with the science classes and a B.Sc. in Dundee. The distinction here would be, that St. Andrews gave him a general liberal culture, and the Dundee classes special training in science. If the Commission can see its way to recommend Government to do as much for Dundee as Dundee is ready to do for itself, and if St. Andrews were to hand over its whole scientific staff to Dundee, on condition that Dundee raised say £30,000 to begin with, such a proposal would act as a very powerful inducement to Dundee to subscribe. Owing to the present great depression of trade, I think some such stimulus to local effort necessary. With increased facilities of railway communication between the two places, there should be nothing to prevent students who live in Dundee from attending the Arts classes in St. Andrews; and I think the establishment of a science college would re-act beneficially on the attendance at the Arts classes.

8015. Do you think that those employed in business would attend scientific classes?—I think they would very largely, especially if, in addition to the purely scientific course, there were classes for the teaching of history, political economy, and literature.

8016. And you think that the professors, who in that case teach in Dundee, should still continue members of the Senatus of St. Andrews?—Undoubtedly, forming the Science Faculty in the Senatus.

8017. You would allow the teaching which the students would receive at Dundee, under some regulations that might easily be framed, to count as part of their course for a degree at St. Andrews?—Yes, for a degree in Science.

8018. I suppose you would not entirely remove from St. Andrews any of those professors whose classes are now necessary for a degree in Arts,—for example, the Professor of Natural Philosophy?—No. I think there should be a new Professor of Natural Philosophy, and also of Mathematics, at Dundee. But the other professors of Science could be transferred, with no injury to the Arts course in St. Andrews.

8019. You think it would require a double Professorship of Mathematics, and also of Natural Philosophy?—In the case of mathematics, the difficulty might be met by providing a lectureship; but in natural philosophy it would require to be a professorship.

8020. That would involve a double supply of the apparatus and appliances which the Professor of Natural Philosophy requires?—Undoubtedly; but it seems to me there might be a senior and a junior class in natural philosophy as well as in Latin and Greek, and that the junior class might be taught in Dundee, and the senior in St. Andrews.

8021. But still both classes would require apparatus?—Undoubtedly.

8022. *Dr. Muir.*—And you would consider this branch a portion of the University of St. Andrews?—A portion of the University of St. Andrews worked at Dundee,—the scientific branch.

8023. *Mr. Campbell Swinton.*—The distance would be so slight that there would be no difficulty in the professors going back and forward to attend Senatus meetings?—I think they could easily attend Senatus meetings. I do not think they could teach in the two places unless there was a very effective train service.

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8024. You have spoken of the efforts made by the St. Andrews professors, to which you attribute to a certain extent the desire in Dundee to have scientific teaching; were these not very much of the nature of popular lectures which the professors gave?—They were perhaps more popular than a University course would be in a fully equipped science college, but they were by no means popular courses in the ordinary sense of the term 'popular.' Many of them were the same as those delivered by the professors to their University students. I attended some of the lectures when the courses commenced, and they seemed to me to be very full and effective teaching of science.

8025. They were attended by both ladies and gentlemen?—Yes.

8026. And were held in the evenings?—They were.

8027. Do you think that, to make such teaching efficient, even by professors located at Dundee, it would be necessary that the teaching should be given in the evening?—I think it would be necessary to have a double set of classes in order to do thorough work in any science college at Dundee,—one set meeting during the day, for regular students going forward to a degree in science, and another set in the evening, to suit the artisan class and others who might wish more general instruction in science.

8028. *Mr. Campbell.*—It would be only the day classes that would be curriculum classes?—Only the day classes, at which the students would be matriculated.

8029. *Dr. Muir.*—Is there no institution corresponding to the Watt School of Arts in Edinburgh which would supply to a certain extent the scientific instruction?—Science is being taught in a popular manner in connection with the Science and Art Department at Kensington. There are public classes under the superintendence of the Young Men's Christian Association in Dundee; but the teaching there, though very good and thorough, is essentially preliminary and popular, and could never count for graduation in science.

8030. *Mr. Campbell.*—Could it not be made to take the place of the more popular evening classes you spoke of?—I should think it might, provided there were teachers who were scientific as well as popular lecturers. The teachers at present are young men who have got a fair scientific training, but who are not lecturers on science in the strict sense of the term, who have not themselves taken the B.Sc. degree.

8031. You think the scientific professors in Dundee could give a better series of popular lectures?—Very much better. I should think they might command audiences of two hundred or three hundred in the evening, whereas lecturers without the same scientific culture would probably have only a few dozens.

8032. *Mr. Campbell Swinton.*—What effect do you anticipate upon the attendance at the Arts classes in St. Andrews by the establishment of this scientific institution in Dundee?—I think it would have the effect of largely increasing the attendance at the Arts classes in course of time. A general interest in academic study being awakened through acquaintance with science, it would re-act in other directions, and lead to a desire for a fuller culture than science gives. It would thus increase the attendance in the Arts classes. At present it is growing very rapidly.

8033. Is the attendance growing rapidly?—I mean the interest of Dundee in academic matters generally is growing. I think that in course of time many young men would come over and attend the Arts course, provided a scientific institution were established in their midst.

8034. The distance being so trifling, there would be no incompatibility in a man (if not engaged in trade) attending the Arts classes in St.

Andrews at the same time that he was attending the scientific classes in Dundee?—Not if the trains suited. There might be some difficulty in managing that; but the class hours might be arranged to suit.

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8035. Has there been any indication, on the part of the public of Dundee, as to what amount of support they would give towards such a scheme as you speak of?—At a public meeting held two years ago at Dundee, a scheme was proposed, of a very extensive character, for a college embracing a full Arts course. At that time the promoters of the scheme thought they might raise £150,000 for it in Dundee. But opinion was divided as to the best kind of institution for Dundee, and the larger scheme has for several reasons been held in abeyance since then. Meanwhile, some of those who have been interested in the experiment of scientific lectures by the St. Andrews professors last year are sanguine that about £30,000 could be raised in Dundee for a scientific college on two conditions—(1) that St. Andrews should hand over its scientific staff to Dundee to form the nucleus, and (2) that Government should help the community to the extent perhaps to which the community subscribed itself.

8036. You mean it to start with those endowments?—Yes; and with museum and apparatus.

8037. Then that would require that some of those classes must be doubled in St. Andrews? It would require, at least, new professors and appliances for the two chairs that have been mentioned?—The chairs to be handed over would be merely the chairs of Chemistry, Physiology, and Natural History. The chairs of Mathematics and Natural Philosophy, being in the regular Arts course, could not be transferred; and a new chair of Experimental Physics and a lectureship in Mathematics would require to be established in Dundee. I am sanguine, however, that the community of Dundee would subscribe to the extent of £30,000 in the event of St. Andrews offering to hand over the three chairs I have referred to, and Government giving an equivalent amount in the form of an annual grant.

8038. Are there any buildings in Dundee which might be available for an undertaking of this kind, as a tentative measure?—There is the Albert Institute, in which lectures have been frequently delivered on scientific subjects; but there would be some difficulty in getting the use of it so exclusively as would be requisite for a scientific college.

8039. Whose property is it?—It belongs to a company. The Institute Company have leased it to the Free Library, and the Free Library has possession of it; but some of the rooms are available for public lectures.

8040. Was it there that the St. Andrews lectures were delivered last winter?—No, they were delivered in the High School. The directors of the High School granted the use of their largest class-room (the mathematical), which is well adapted for the purpose, and as many as 400 persons attended sometimes. It would be impossible, however, to get the use of the High School during the day.

8041. When you speak of £30,000 as likely to be contributed by Dundee, does not that involve the necessity of some temporary buildings being found?—The £30,000 would go a very short way in providing buildings. I think that in the meantime, as it is wise to begin modestly, a house should be rented and fitted up with two class-rooms. A scientific institution of that kind should start as modestly as the Newcastle College of Science did.

8042. That is what I pointed at,—that a house adapted for the purpose might be found and fitted up?—That I consider the wisest arrangement.

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8043. *Dr. Muir.*—Is this minor scheme supported by those who promoted the original and grander scheme? Would they be satisfied with it?—I think that many of those who promoted the larger scheme, seeing it is not practicable in the meantime, will be induced to support this smaller one.

8044. *The Chairman.*—Was there not some particular source from which the greater amount of the money was expected to come to promote the larger scheme?—There were large subscriptions talked of, but so indefinitely talked of, that while one may know what the sources were, one is not warranted in publicly speaking of them.

8045. Is there any reason to suppose that those sources could be made available for the more limited scheme?—I would sincerely hope so. I trust that in the course of time, an academic foundation once laid, extension might be made in various directions.

8046. *Mr. Campbell Swinton.*—Would you have any provision made at Dundee for classes such as those existing in the classical and mental philosophy departments at St. Andrews?—I think there might be tutors to teach Latin and Greek; and the mathematical class would, I think, be best taken, in the first instance, by a tutor.

8047. Would you allow attendance on those tutors to count as University attendance with a view to a degree?—Not with a view to an M.A. degree. I think they might prepare students for entering on the second year of their classical studies at St. Andrews, and so shorten their curriculum for the degree of M.A. or B.A.

8048. It is entirely with a view to a degree in Science that you would have this institution in Dundee, and not to a degree in Arts?—Not to a degree in Arts, except in so far as the teaching of Latin, Greek, and mathematics in classes taught by tutors would enable the student more easily to get his degree in Arts.

8049. By afterwards attending at St. Andrews?—Yes; by afterwards attending at St. Andrews.

8050. Have you had the subject discussed in the *Senatus* since you became a member?—We have not.

8051. Then the evidence you give us is founded principally upon your knowledge as having been formerly resident in Dundee, and in that way taken an interest in the subject?—Yes; and the question is being much discussed amongst the professors at St. Andrews. It is the prominent question in the minds of the professors just now, how we can best extend our usefulness academically by a movement towards Dundee.

8052. You would not in any way allow Dundee to interfere with your own class or with the logic class? Mental philosophy would be better to be taught solely at St. Andrews?—I think there might be a class of political economy in the Dundee course, with great advantage, and I think the Professors of Mental and Moral Philosophy at St. Andrews might do double work. It seems to me there might be a junior and senior class in logic, moral philosophy, and natural philosophy, as well as in Latin and Greek.

8053. But you would not have either of these classes at Dundee?—I would have political economy taught in Dundee.

8054. But the others,—the philosophical classes?—It has occurred to me that, in connection with the science course, it might be a very valuable element to have a class for the principles of science,—the teaching of the inductive philosophy,—which would take the place of formal logic. It would be better not to call it a class for the teaching of mental philosophy; but a class for instruction in the principles of science would

have an organic connection with the subsequent special studies in the particular sciences.

8055. Do you think the Professor of Logic would undertake that?—At present it could not be done, but I do not see anything that should hinder it being a possible arrangement in the future, although the appointment of a separate professor or lecturer in Dundee is what I point at.

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8056. *Dr. Muir.*—Supposing the chairs to be transferred to Dundee which you contemplate being transferred, with their endowments and emoluments, what do you consider would be the additional expense of the other professorships and tutorships which you propose to be established?—It is rather difficult to estimate that. It would depend on the size of the college, which might extend in any direction according as you multiplied chairs; but for a nucleus to start with, I think an annual endowment of £1200 additional would be necessary. That assumes the present endowments of the St. Andrews chairs to be transferred to be about £600, and other two portions each of the same amount, the one to be subscribed locally by Dundee, and the other provided by Government.

8057. Independent of this scheme, is there any call for additions to the salaries of the existing professors at St. Andrews?—Very great need. It is of the utmost consequence that there should be some addition to the salaries of the Arts professors. Some of them have at present between £300 and £400 a year, without a residence; and it seems extremely desirable, with a view to enable each professor to devote himself exclusively and untiringly to his subject, that he should have a better endowment than that. Many of the professors are compelled to resort to literary work of a desultory nature, and that is unavoidable so long as the endowments are so small.

8058. On the other hand, are there not some compensating advantages in a professor being engaged in literary work?—Undoubtedly there are; but it seems to me that the endowment of a Scotch professor should in no case be less than £500 a year, in order that he may do his class work thoroughly and undistractedly, as well as any extraneous work he may undertake.

8059. Including fees?—No; exclusive of fees.

8060. *Mr. Campbell Swinton.*—How are you off for bursaries in St. Andrews?—Not very well. The foundation of new bursaries is much needed, and the conversion of all the presentation bursaries into public ones obtainable only after competitive examination. There are only twenty foundation bursaries, and the best of them are only of the value of £10 each annually.

8061. In whose gift are they?—In the gift of the United College.

8062. Are all the bursaries at St. Andrews in the gift of the United College?—There are a good many private bursaries of greater value, but the foundation bursaries only are in the gift of the College.

8063. Are they awarded by competition?—The foundation bursaries are all awarded by competition.

8064. And the presentation bursaries are given by the patrons without any examination on the part of the College?—In some cases by examination, but not by the College. In the case of the Spence bursaries, for example, the trustees appoint a special examiner, and the holder of the bursary can attend classes either at Edinburgh or St. Andrews.

8065. That bursary may be held by a student in either University?—Yes.

8066. But, with that exception, are the presentation bursaries generally given merely as matter of charity, without any regard to the

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intellectual merits of the presentee?—There are a number of small bursaries; but my recent connection with the University does not enable me to speak as to the details of their administration.

8067. Then, when you say that additional bursaries are required, you mean bursaries in the gift of the Senatus?—Yes, or of the United College.

8068. And to be awarded by public competition?—Certainly; and I think it would largely increase the attendance at St. Andrews if there were more of them.

8069. Have you any opinion to express on the propriety or expediency of instituting entrance examinations?—It is involved in the view I suggested in reference to the students being exempted from the first year's classes if they pass a preliminary examination.

8070. But that exists now. Cannot a student enter the second year's class if he passes an examination?—He can; but I think the examination might be raised in stringency, so as to have a higher standard of attainment in the second year's classes.

8071. Would you subject all students to an examination, whether they came fresh to the University or from the first year's class?—All of them.

8072. Would you admit to the first year's class without examination?—No; there should be an entrance examination even in that case, only of less stringency.

8073. Is the present state of secondary education in the country such as to make it possible that all students should have sufficient proficiency to enable them to pass that examination on entering the University?—I think they should be able to do it quite easily.

8074. Do you think there are the means in the country for young students acquiring that knowledge before they come to the University?—So as to attend the junior classes,—undoubtedly.

8075. Have you considered the question of the expediency of reviving the degree of B.A.?—I have. With respect to the B.A. degree, it seems to me that the chief reason for reviving it arises from the necessity of altering the regulations for the M.A. degree, because the most important reforms in the latter cannot be carried out without a common base or starting-point, such as the B.A. will afford. The alteration is this: Permitting the student to choose between several competing subjects, proficiency in which would equally qualify for the M.A. degree. This seems necessitated by the growing complexity of modern culture, and the extent to which research is being carried out in every department of knowledge. I suggest that, after graduating as B.A., the student should be permitted to choose between (a) classics, (b) philosophy, (c) science, and (d) history, with English literature and modern languages, which would thus form four distinct branches of study, or groups of subjects, each leading up equally and alternatively to the M.A. degree. But, in addition to this, it would be necessary to have a common base or root, from which the separate branches radiate in these four directions. This root of the Arts degree might be found in a two years' academic attendance for those students who pass a preliminary examination, and are able to enter the second classes of Greek and Latin. Those who enter the junior class would require a three years' course. The classes would be as follows:—*First year*, second Latin, second Greek, and second mathematics. *Second year*, logic and mental philosophy (junior class), moral philosophy (junior class), and natural philosophy (junior class.) As I have already said, additional work might be done by the Professors of Mental, Moral, and Natural Philosophy respectively. The Professors of Latin, Greek, and Mathematics have two or three classes daily. I do not see why

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the other professors in the Arts course should not do as much work. And if a junior and senior class were formed in each department of the Arts course, attendance at the junior would qualify for the B.A., and at the senior for the M.A. degree. It is easy to divide a course of instruction in mental philosophy into two parts, the junior consisting of logic and psychology, the senior of metaphysics; and similarly to divide ethics into a junior course of psychological study, and a senior dealing with the metaphysics of ethics, and the history of ethical theories; while a course of natural philosophy would be similarly divided into an elementary and an advanced section. Thus, for the B.A., attendance would be obligatory not merely in the Latin, Greek, and mathematical classes, but in the junior mental, moral, and natural philosophy. In order to prevent any abrupt break with the past, I think that every student who may wish afterwards to devote himself to special study in any department should first of all be compelled to study those subjects which have hitherto formed the basis of general culture. Thus, while the M.A. degree would be the symbol of special attainment in a particular class of subjects, it should in no case be possible to obtain it without the B.A. preceding, which would represent at least a minimum of general culture. If the student wished to go on to the M.A. degree, he would have the option of taking any one of four different sets of classes, and graduating accordingly. And it seems to me highly important that, by a fixed arrangement as to graduation, the professors in all the Arts classes should feel an equal interest in the B.A. and the M.A. degree, by their having each a junior class, attendance on which was obligatory on every student for the B.A., and a senior class, which was optional till the student had fixed the department in which he would graduate as M.A.; for thus the number who might select his special department, and therefore attend his senior class, would probably depend, in part, in the interest felt and the work done by the professor in his junior class. In going on from the B.A. to the M.A., the student would have the option of either (1) graduating in classics, in which case he would take, during his additional year of academic attendance, the senior or third Latin, and senior or third Greek class; or (2) graduating in philosophy, he would take the senior mental and senior moral philosophy, and political economy (or political economy might be associated with the fourth optional class of subjects); or (3) graduating in science, he would take senior mathematics and natural philosophy, with chemistry, and either geology, zoology, or physiology as a fourth optional subject; or (4) if he wished to graduate as M.A. in history and modern literature, this might form a fourth branch of the degree. The classes he would attend in that case would be English literature and history, or (as above suggested) political economy; and a chair of History might with great advantage be founded where it does not exist. Were there academic chairs for the teaching of modern languages, they would belong to this fourth class. I think it of great importance, if the B.A. degree is revived, that attendance at none of the existing Arts classes in the Scottish University curriculum (so far as it is a uniform curriculum at the four Universities) be dispensed with as a condition of obtaining it, so that all the professors may have an equal interest in the B.A. degree; and that in the choice given to the student amongst additional subjects for the M.A., the range should be wide enough to include all the subjects now taught. Thus a direct stimulus will be given both to the professors and the students.

8076. You would allow the student, after taking the B.A. degree, to select one of those four branches?—Any one of those branches.

8077. And to attend classes in that for one year?—Yes.

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8078. Taking the M.A. degree at the close of that year?—Yes.

8079. What advantage do you expect from making the examination which is to take place at the end of the second year the passport to a degree? Would not the examination do as well without calling the result of it a degree? Would it not do as well to have an examination at the end of the second year, before the bifurcation or trifurcation takes place, without there being a degree attainable at that time?—It would seem to me to stamp the student's progress emphatically when he reached that stage, and to give him a base from which to proceed more naturally in choosing which of the four departments he would select.

8080. Would you not be apprehensive that many students would be so contented with having that stamp that they would not go on to take the higher degree?—If there was a very marked difference between the value of the two in the University opinion of the country, I think no student who wished to advance himself would rest satisfied with the lower degree.

8081. And how would you emphasize the distinction in value between the one and the other?—It would be emphasized largely by public opinion; and it might also be emphasized by the admission of the holder of both degrees to a seat in the University Council.

8082. I presume you would not give a man a seat in the University Council until he was an M.A.?—Not until he was an M.A.

8083. *Dr. Muir.*—Would it not be an objection to your suggestion regarding the B.A. degree, that in the English Universities the B.A. is simply a step to the M.A. degree, which is gained without further examination?—I do not think it would.

8084. *Mr. Campbell Swinton.*—The B.A. in the English Universities, you are probably aware, denotes something very similar in point of attainments to our M.A., just because it is the only degree that is attainable by examination?—Yes.

8085. You are aware that the M.A. in England is attainable by keeping the name on the books without a second examination?—Yes.

8086. Would there not be an awkwardness in our designating by the title of B.A. an amount of attainments so very much smaller than the same title designates in England?—I should think the difference would soon come to be generally known in the country, and no practical difficulty in the working of the two degrees should emerge.

8087. According to your system, no man could take the M.A. degree unless he had previously taken the B.A.?—Certainly not.

8088. That would be a total departure or variation from anything that prevails in the great English Universities?—Only in so far as additional study and examination, as well as residence, would be required for the Scottish M.A. degree.

8089. Are there any other points that occur to you on this topic?—There is one difficulty in connection with graduation in science at the proposed Dundee College, viz. as to the classes and curriculum at such a college. I would not presume to draw up a scheme for classes, but I would suggest that they should include mathematics, natural philosophy or experimental physics, chemistry, natural history, biology or physiology, and engineering. I think it would be well to begin with a minimum, and extend from that foundation as circumstances suggest.

8090. How many entirely new chairs would that require the institution of in Dundee, besides those transferred from St. Andrews?—Three new chairs, viz. Engineering, Experimental Physics, and Biology, and a lectureship in Mathematics. I may observe, there is very good teaching in mathematics at Dundee High School, and a tutor could easily do the

work in mathematics without the establishment of a distinct professorship in Dundee,—at all events, to begin with.

8091. Then it would be necessary to recognise his teaching as qualifying for a degree?—I do not mean that the teacher in the Dundee High School should be the teacher of mathematics in the proposed new college. But inasmuch as the mathematical teaching is excellent at the High School, a lecturer might easily take the place of a professor in the proposed college.

8092. Then you would give the lecturer the privileges of a professor, so far as regards qualifying for a degree?—Yes.

8093. That would be, to a certain extent, recognising the principle of extra-mural teaching?—The lecturer would be on the teaching staff of the Science College.

8094. Do you in other respects approve of extra-mural teaching?—Under certain restrictions I think it would give new life and impetus to the work of the Scotch Universities.

8095. Under what kind of restrictions?—There would require to be restrictions as to the number permitted to engage in extra-mural teaching.

8096. Of course it would only be those recognised by the University Court. You are aware of the system that prevails in connection with the Faculty of Medicine in Edinburgh?—Yes, I am.

8097. Under some such restrictions?—Some restriction would be necessary. As regards the bearing of the instruction at the Dundee college on the obtaining of a degree, neither the B.A. nor the M.A. degree could be obtained without study at St. Andrews, according to the scheme suggested; but I would distinguish between B.Sc. and M.A. in science. The B.Sc. might be obtained thus: taking the first year's subjects in the St. Andrews B.A. course at Dundee,—where they could be taught by tutors,—the student might thereafter qualify himself for the B.Sc. by attending the science classes in Dundee,—of course not taking philosophy at all,—and might obtain the B.Sc. degree without attending any of the subjects necessary for the B.A. at St. Andrews,—the distinction being between the B.Sc. and the M.A. in science.

8098. You anticipate a B.Sc. as well as an M.A. in science?—Yes; in the scheme I suggest, before obtaining the M.A. in science the student would require to have attended the St. Andrews regular course.

8099. In that case there would be no provision for the B.Sc. having any knowledge of languages?—Not of the classical languages.

8100. Would you include modern languages amongst the requirements for the Dundee teaching?—I think it would be highly expedient to have classes for French and German in Dundee,—for the modern languages generally.

8101. *Mr. Campbell.*—Do you mean classes for teaching the languages, or for the literature?—For the literature mainly, as the languages are well taught already, and all students who came to the class would be already grounded in the elements of the languages.

8102. *Mr. Campbell Swinton.*—Have you any further remarks to make?—On the other heads of inquiry, my recent connection with the University does not enable me to offer an opinion that would be of any value to the Commission.

8103. *Dr. Muir.*—Have you anything to say with regard to the Theological Faculty, or the present conditions under which it exists,—for instance, the necessity for each of the professors signing the Confession of Faith?—That is a very delicate and difficult question to enter upon.

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8104. Do you not think that a free theology might be taught in the Universities?—I think there might be a chair for the study of Comparative Religion and Theology in each of the Universities with great advantage; but the relation of that to the existing theological chairs is a very intricate question. It would greatly advance theological science and the general usefulness of the University to have such a chair.

8105. *Mr. Campbell Swinton.*—Would you get many students for such a chair?—In course of time.

8106. It could not be part of the curriculum for any of the Churches?—I am afraid not, at present; but many theological students might attend the lectures on such a subject.

8107. *Dr. Muir.*—Supposing the existing chairs to remain on the present footing, do you consider any further chairs are required merely with the view of preparing students for the ministry of the Church?—It would be highly desirable if the Churches could be got to recognise it, that attendance at a class of comparative theology should be obligatory. I think it would greatly further the interests of higher theological culture in the land.

8108. Is there in the present Theological Faculty sufficient provision for the teaching of both New Testament criticism and Old Testament criticism?—It would be very expedient to have them separated,—to have a separate chair for each subject, as is the case in the Edinburgh Theological College of the Free Church.

8109. *Mr. Campbell Swinton.*—With regard to the accommodation provided for principals and professors, have you any opinion to give us?—I think that all the professors should have official residences. It would be especially desirable that the Principal of the United College in St. Andrews should have one. He is the only Principal in Scotland who has not, and it would add greatly to the dignity of the University and be every way expedient that he should have a residence.

8110. Do you think it desirable that the double Principalship should continue?—Upon that point my recent connection with the University does not enable me to speak with confidence; but, on the whole, I should think it anomalous to keep it up under its present name. At the same time, every college requires an official head, whether called Principal or not. There might be one Principal for the University, and under him a rector, master, provost, or head to each college.

8111. Of course, whatever was done on that matter would not affect the question of an official residence for the present second Principal, both because his own personal interests are concerned, and because if the other Principalship were abolished, an additional Professor of Divinity would be required,—the Principal of St. Mary's College being also Professor of Divinity?—Quite so.

8112. It would scarcely be fair towards the professors in the United College, that if there was only one Principal, he should be the Principal of St. Mary's College, which has no intimate connection with the United College?—He would require to be Principal of the University. If a science college were established at Dundee, that college would require to have a head; and hence the arrangement might be, that the three colleges should each have its local head, while the University had only one Principal.

8113. Each local head might be one of the professors?—Yes.

Adjourned.

MONDAY, 4th December—(Forty-Fifth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.
LORD MONCREIFF.
DR. JOHN MUIR.
ARCHIBALD CAMPBELL SWINTON, Esq.

Rev. Dr. PHIN, examined.

8114. *The Chairman*.—You are a Doctor of Divinity of the University of Edinburgh?—I am.

8115. Were you educated at the University of Edinburgh?—I was.

8116. And you are a member of the General Council?—Yes.

8117. And I think you were for some time the representative of the General Council in the University Court?—For four years,—immediately after Dr. Muir.

8118. You have taken some interest in the meetings of the General Council, have you not?—I have.

8119. What is your opinion as to the existing constitution and powers of the University Court, and do you think there ought to be any change in them?—I think there might be a little change in constitution. I think it would be improved by the addition of another member from the General Council. I would keep the present members as they are, but I think it desirable that there should be the addition of another representative from the General Council.

8120. Is that for the sake of increasing the numbers, or for the sake of increasing the influence of the General Council?—I should say it is very much in order to keep the University Court and the University Council as much as possible in harmony. As matters at present stand, I think there is a tendency on the part of the University Council to look on the University Court as a body that is estranged from it, and I think if you could bring them more closely into connection by increasing the Council's representation, it would be a good thing.

8121. With regard to the powers of the Court, have you any suggestion to offer?—If I may take into consideration the powers of the Council also, I am of opinion,—very much for the same reason as I have already stated with reference to the representation,—that when the University Court—before any change in the constitution of the University is made—submits a question to the University Council, the Council should have an opportunity of giving a veto if it think necessary. I would not require an assent, but I would require that there should be no objection.

8122. Would you give the Council a veto upon all the proceedings of the University Court?—I mean upon those only on which it is indispensable that the University Council should be consulted, according to the existing law. Perhaps I ought to mention also, that I think it would be necessary to make a change upon the University Council of an important kind. I think there should be with reference to the University Council what there is with reference to the University Court and with reference to almost every body that I know anything about,—a quorum fixed. There is at present no quorum.

8123. *Dr. Muir*.—A quorum of attendance, do you mean?—Yes. I

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think the Council should not be allowed to proceed to business without a certain number of members being present.

8124. What would you fix?—With such a large body, I think it would be very fair to require an attendance of 50.

8125. *The Chairman.*—The numbers of the Council are very large—over 2000, are they not?—They are. I have no objection to the quorum being larger than 50, but I mention 50 as a minimum.

8126. If you required a quorum of 50, or even of 100, would not the same difficulty still arise which exists at present, of the members who attend being almost entirely from the locality of the University seat?—From a combination of circumstances, I don't think that that would necessarily be the case. The autumn meeting is held in Edinburgh generally on the Friday before the last Sunday of October, and a great number of country ministers are in town at that time; besides, so far as my experience has gone in the Council, I should say that at every meeting, even at the worst attended meeting, there has been a fair representation of those who were living beyond Edinburgh. I have thought that the deficiency in the attendance, when there was no matter of very great interest, was quite as much among the members of the Council living in Edinburgh as among the members living in the country; for this reason, perhaps, that many of them having a great deal to do, did not think there was anything of much consequence to bring them up.

8127. The meetings at present are very ill attended, are they not?—Very ill. They have been getting worse.

8128. Had you ever less than 50?—Oh yes, frequently. That has been proved by divisions that have taken place, where there have been fewer than 24 voting.

8129. *Dr. Muir.*—In the event of a quorum not being present, would you have a postponement of the meeting?—Yes; I think there should then be no meeting at that time,—which is, I suppose, not an uncommon thing with reference to public bodies.

8130. Would you postpone the meeting of Council to next ordinary meeting, or would you allow an adjournment for a certain fixed period?—I am not in favour of allowing an adjournment for a fixed period. I think if the Council has its meetings twice a year, that is quite sufficient for the transaction of all its business.

8131. *The Chairman.*—Would you not be afraid that the consequence of fixing a quorum such as you have proposed would frequently be to prevent meetings from being held?—Very likely, but I would rather have no meetings at all than very small ones.

8132. You would not think it a very great calamity though a meeting should not take place at all, if it were to be a meeting attended by so small a number?—Quite so. On the contrary, I deprecate ill attended meetings, because they enable a few individuals to represent themselves as giving the general sentiments of the Council, when perhaps they are only giving the sentiments of a very few.

8133. I suppose in practice you have found that that does occur,—that a few men assembling at a stated meeting of the General Council have given effect to a view which probably was not that of the great body of the Council?—I don't know what the view of the great body of the Council may be upon the questions then discussed.

8134. You cannot say that that is so?—No, I should not like to say that.

8135. Will you explain to me whether the veto which you propose to the Council is to be an absolute veto, or are the Council to communicate to the University Court their reasons for objecting to the proposal?—

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Unless my memory fails me, the Council at present have the power of doing what your lordship suggests; and I remember its having been exercised in one case. Very soon after the Council was constituted, I carried a motion for a representation to the Court on an important subject. The University Court gave a decision against us, and, to the best of my recollection, we sent another representation on the subject to the University Court. I think there is nothing to prevent the Council representing the same thing a second time to the University Court, stating its reason.

8136. Then you would give an absolute veto to the Council on any proposal made by the University Court under section 12 sub-section 2 of the Universities Act?—Yes.

8137. And also under section 19, I presume?—I need not tell your lordship that at present there are certain things that cannot be done without the University Council being consulted. But their judgment may go for absolutely nothing. Now I should be inclined to say that if they vetoed any proposal coming under the heads that I have just alluded to, that should be fatal to the proposal being adopted. That is the reason why I would fix a quorum.

8138. Would you not be afraid to trust so large a power as an absolute veto in the cases supposed to so numerous and popular a body as the University Council?—I would not. I think that a numerous and popular body like that, acting to a large extent under the influence of public opinion, through its procedure being reported in the newspapers, would feel itself prevented from doing anything such as your lordship points at. I could understand a few individuals doing it.

8139. Don't you think that a body so numerous as that is little fitted to be entrusted with anything like executive or administrative functions?—I don't think that under the present law they are consulted upon executive or administrative matters. It is when some changes are to be made on the constitution of the University.

8140. But if they are not suited to exercise administrative or executive functions, is it not rather an anomaly that they should have a veto on the body that is entrusted with these functions?—I do not wish them to have a veto on all the proceedings of the University Court; but what I wish is, that when changes are to be made which are to influence the procedure of the University Court and the general management of the University, they should have a veto upon these. I would not propose that they should have a veto on what was done in the University Court as to general business; but there are matters as to which they are entitled to be consulted under the present statute, and I think as to these they should have a veto.

8141. The occasion on which they are at present entitled to be consulted is when the Court propose to effect improvements on the internal arrangements of the University. Now I understand your opinion to be, that the Court should not be entitled to effect any improvement on the internal arrangements of the University without passing the ordeal of a veto of the General Council, which is, if I mistake not, equivalent to requiring the consent of the General Council?—Practically it would come to that. Of course it is more difficult to get an actual consent than it would be to prevent a veto. But what I mean is this, that in all cases in which by the present statute the University Council must be consulted, I would make the decision of the University Council operative. I think it creates a great deal of bad feeling that while the University Council must be consulted, the Court may still proceed in direct defiance of what the University Council has said. I don't think that any practical evil would

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result. On the contrary, I believe that in all cases in which real improvements were to be made, the Council would be duly influenced by the opinion of the University Court. That has been my experience. There may be a few individuals in the Council who may wish to thwart the Court, but if you had anything like a general meeting, you would find nothing of the sort.

8142. Suppose that the meeting of Council at which a proposal of the University Court under that section is to be brought before them falls through for want of a quorum, what is to be done?—Then the improvement would have to be suspended until there was a quorum.

8143. Might that not be attended with great inconvenience?—It might possibly.

8144. That would postpone it necessarily for half a year?—Yes.

8145. And suppose there was no quorum at the next meeting?—In that case it would be put off still further. But my impression is, that if you fix anything like 50 or even 100 as a quorum, if an important improvement is proposed, there will be no difficulty in getting a meeting of the Council to consider it.

8146. If you require that there shall be a meeting of the General Council to resolve whether they will exercise their veto or not,—which is the condition I think you last specified,—is not that just requiring the consent of the General Council?—Practically it comes to the same thing. Nevertheless, I think it would be easier to prevent a body like the General Council from giving a positive approval than it would be to induce it to use its veto.

8147. You would not make any change on the meetings of the General Council, I understand?—No.

8148. You think they meet often enough, even supposing this change were to be introduced?—I think so. I have never seen any reason for their meeting more frequently. I cannot imagine that there could be any such great emergency as to render it absolutely necessary that they should meet more frequently.

8149. Is there anything else connected with the functions of the General Council that you would suggest?—They ought to send another representative to the University Court; and I think it might be very desirable if the curatorial body were reinforced by a representative from the University Council.

8150. There are at present seven curators. That would make the number eight?—Yes.

8151. Is it not desirable to have an uneven number?—That is possible. You might meet that difficulty by giving a casting vote.

8152. Or by having two representatives from the General Council?—Yes. At present the University Court is an even number.

8153. But that also would be altered by your proposal?—Yes.

8154. The curatorial court in the University of Edinburgh is an anomalous body, which does not exist in any of the other Universities; do you think it is a safe and expedient depository of patronage, or would you make any change?—At the second meeting of the University Council I moved in favour of a change, and carried the motion by a large majority.

8155. How long is that ago?—It was in 1860. It was at the first meeting at which general business was transacted. The proposal that I made then was that the patronage should be transferred from the curatorial body to the University Court.

8156. Was that a large meeting?—It was a large meeting.

8157. Larger than the meetings have been of late times?—Three or

four times. It was the first meeting held after the election of the Chancellor.

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8158. Has the subject been discussed in the General Council since?—We sent a representation to the University Court on the subject, and the University Court answered us that they did not think it expedient to interfere. There was a proposal to send it back to them for further consideration. I am not quite sure whether that was done or not, but I know that the University Council formally adhered to its representation after the University Court had said that they thought it inexpedient to entertain it.

8159. At that time the curatorial body had very recently come into existence?—Very recently.

8160. And there had been no experience of its working?—No.

8161. Since that time there has been experience of the working of that body. What is your opinion now?—I am bound to say that I think the working of the body has been improving. That is my impression. Perhaps I ought to mention that when I brought the matter before the University Council, the new curators had just been appointed, and that the reasons given for the appointment of some of them seemed to be rather extraordinary, and such as to provoke a suspicion that the patronage might be influenced under certain biases; and it was in consequence of that, I believe, that I had so large a majority in the Council.

8162. That was in consequence of certain appointments made by the Town Council?—And made for certain avowed purposes. I remember that they put in one man as representing one church, another as representing another church, and a third as representing a third church; which was not thought a very proper way of electing curators for University patronage.

8163. But the experience of the working of the curatorial body has been more favourable than you then anticipated?—It has been more favourable latterly; and I think very much in consequence of the Town Council not having confined their election of curators, as they originally did, to members of their own body.

8164. Are you still in favour of transferring the patronage from that body to the University Court?—In principle I think it would be the best thing to do. I don't see why the same privileges should not be given to the University Court of Edinburgh as are given to the University Court of Glasgow; but I am aware that the arrangement is to a certain extent the result of a compromise, and I should be sorry to excite a very disagreeable controversy on the subject again, now that I think the present system is working better than at first I feared it would do. Nevertheless I believe that the introduction of a popular element through a representative from the University Council would have a tendency to satisfy those who look at the matter from a University point of view, and I think it might be less disagreeable than some other arrangements to those who urged it from a municipal point of view.

8165. Do you think the University Court is a suitable body to be entrusted with the patronage of the chairs?—There was no appointment of a professor while I was a member of the University Court, but we filled up several other vacant offices; and I am bound to say that I think the University Court would make their appointments with the most perfect candour and with the desire to get the best possible man.

8166. Do you think that the University Court is a better body to exercise patronage than any of the other patrons of the chairs?—I do, upon the whole.

8167. Better than the Crown?—Decidedly, I think.

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8168. And better, of course, than private patrons?—Yes, I think so.

8169. Do you see any objection to introducing another element into the curatorial body in the shape of a nominee or nominees of the Crown?—None whatever, provided the University Council have a nominee also. I think what you suggest would be a very fair thing to do. There is no doubt that the Crown has a very great interest in the success of the University, and that the University is to a large extent supported by national funds, and therefore I think it is a most legitimate thing that the Crown should have something to say in the curatorial body, provided always that the University element gets an additional representative.

8170. The Council?—Yes. I think such a proposal as your lordship has pointed at might very possibly remove disagreeable feeling more than anything else.

8171. Have you had occasion to consider whether the practice of recognising extra-mural teaching as it now exists in the Faculty of Medicine should be extended to any other faculty?—Yes, I have considered that very fully, and I am inclined to think that it ought to be extended to the Faculty of Arts. Of course I need not say to your lordship that at present extra-mural teaching is recognised with reference to the Faculty of Divinity, for a man can get B.D. though he has not studied in the theological classes in the University.

8172. It is recognised in the Faculty of Theology to a greater extent even than in the Faculty of Medicine, is it not?—Yes.

8173. A man may qualify himself for the degree of Bachelor of Divinity without any attendance on the University at all?—I would not extend that to the Faculty of Arts.

8174. It has been introduced into the Theological Faculty from considerations which don't apply to the Faculty of Arts?—Yes; and I have no hesitation in saying that I thought the change was too sweeping.

8175. What amount of extra-mural teaching would you allow in the course of the curriculum for the Faculty of Arts? I mean, how much would you allow to count in the attendance?—At present the curriculum may be only three sessions, by a man going through certain examinations. I would consider it a very great step gained if even one year's attendance on extra-mural teaching was permitted. I would not, however, be inclined to put it exactly as one year, but there are certain classes which are necessary for the degree of Arts, and I think a certain proportion of these classes might be taken without the bounds of the University, subject, of course, to the same arrangements as are at present made by the University Court as to extra-mural teaching in the Faculty of Medicine.

8176. Can you specify the classes that you think might be taken in that way?—I would not be disposed to limit the classes. It would depend entirely upon the qualifications of the professors in the University. I may mention, as there is nobody now alive who can be annoyed by the statement, that when I myself was attending the University here, a very large number of students were prevented from taking the degree of M.A. in consequence of its being necessary to attend one particular class, which there was a very strong feeling at the time was not very satisfactorily taught. I believe there was nothing that prevented the taking of the degree of M.A. in Edinburgh for a number of years more than that fact.

8177. Would it not be necessary to accompany such a change with some additional endowment to the professors in the faculty?—I should be inclined to say so. At the same time my notion is, that if a professor

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is really doing his duty satisfactorily, he has a certain advantage from being within the walls of the University which will prevent any man who is not very much his superior from competing with him outside the walls, provided always you take care to do what the University Court does with reference to the classes of medicine,—to regulate the fees in the extra-mural classes.

8178. To prevent the extra-mural teachers from underselling them?—Yes.

8179. You say you would not make any distinction among any of the classes; but in the case of the class of natural philosophy would there not be considerable difficulty in recognising extra-mural teaching unless you were assured that the extra-mural teacher had sufficient appliances and a museum to carry on his class?—Yes; but the same thing applies to the Faculty of Medicine. When the University Court is asked to sanction a lecturer, say in chemistry, it is always remitted to a member of the University Court,—at least it was in my time,—to satisfy the Court as to whether he has sufficient appliances; and I remember that in every medical case Sir Robert Christison was in the habit of certifying to the Court that there was a museum and other sufficient appliances.

8179.* In the case of medicine it is not difficult to find such provision without the walls of the University, because of the existence of an extra-academical school in Edinburgh; but in the case of the Faculty of Arts you would not have the same expectation?—In that case, if there were not sufficient appliances, I think no ticket should be recognised from the lecturer.

*8180. Supposing that in the curriculum for the Faculty of Arts there were introduced, as has been proposed by a good many witnesses, certain alternative subjects of study in natural and physical sciences, the difficulty of finding extra-mural teachers for such classes would be increased, would it not?—It would.

8181. Then would it not be upon the whole the most advisable course to limit, at least perhaps for the present, the recognition of extra-mural teaching to those departments in which no such appliances are necessary?—Very likely it would; at all events I think it ought to be practically limited by declaring that the appliances must be provided.

8182. Have you any suggestions to offer to the Commission on the subject of the finance of the University and the administration of its property?—I don't wish to press my views upon that point, but my experience in the Court was that this was one of the things on which there was likely to be a disagreeable difference of opinion between the Senatus and the University Court; and it seemed to me that if the Senatus were allowed to go on undertaking pecuniary responsibilities and spending money, and if all their procedure be rendered nugatory by the University Court disapproving of it, disputes were likely to occur. I have thought that if anything could be done by which, while the expenses were being incurred, the Court could be brought into counsel with the Senatus, a disagreeable collision might be avoided.

8183. Have you any practical remedy to suggest?—I am not aware of the details of the Senatus' management, but I understand that they have what is called a finance committee which recommends certain payments, and that then these payments are sanctioned by the Senatus. Now it has struck me that, if the operation of the University Court were brought in a little sooner than it is, difficulty might be avoided. The University Court see the account at the end of the year, and are asked if they approve or not. My experience was that there was a tendency to go into the thing in a way that might lead to a collision; indeed, once or twice I saw a very near approach to a collision.

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8184. The University Court know nothing of the expenditure until it has been made?—That is so.

8185. And what you desire is that they should have the means of interposing before it is made?—Yes; but I hesitate as to how that is to be managed.

8186. The influence of the University Court is brought to bear now only so as to prevent a repetition of what they disapprove of?—Yes. I am inclined to think that they could go further, and that they could actually disapprove of what has been done.

8187. And direct it to be undone, you mean?—I should say so.

8188. Practically that might be too late?—That is my feeling.

8189. But that has never occurred?—It has never occurred; but while I was in the Court, there were occasions when I should not have been astonished if it had. It does practically come to this, that it is rather for the future than the past that the University Court acts.

8190. Is there any other subject on which you would like to give evidence?—No, I don't know of anything. The subjects on which I wished to speak were the addition of members to the University Court, the additional member from the Council to the Curatorial Court, the veto, and the extra-mural teaching under certain restrictions. I am very far, indeed, from proposing that there should be unqualified extra-mural teaching. I think that would be most objectionable. I think no one should be allowed to teach extra-murally unless he is a graduate of the University and is approved of by the University Court, and unless the Court is satisfied that his class is so conducted as to give the student as good teaching as he would have within the walls of the University.

JOSEPH COATS, M.D., examined.

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8191. *The Chairman.*—You are Lecturer on Pathology in the Western Infirmary in Glasgow?—Yes.

8192. You are a Doctor of Medicine of the University of Glasgow?—Yes.

8193. Your lectures are recognised by the University, I believe?—By the Universities of Glasgow and Edinburgh.

8194. How long have you been pathologist in the Western Infirmary?—For two years in April next, but before that I was pathologist in the Royal Infirmary from October 1869.

8195. You have considered, I daresay, attentively the present curriculum for graduation in medicine in the University, and the regulations for graduation?—I have.

8196. Do you think there ought to be any alteration in the course of study?—I think there should be an alteration in respect to pathological anatomy. At present the arrangement is that pathological anatomy should be attended in a three months' course of lectures, with a supplemental course of practice of medicine or clinical medicine. Now, in the first place, this is an exceedingly indefinite statement. A three months' course of lectures might be a dozen lectures in the three months; and, as a matter of fact, from the time the regulation was passed till 1870, it was simply a dozen lectures in the course of three months. That ought, I think, certainly to be altered. And even if it were made fifty lectures, I think that, considering that in pathological anatomy it is necessary, to teach the subject properly, to have demonstrations to show the students the diseased organs from bodies which have been examined, and considering that in the course of the winter session there may be thirty or forty

such demonstrations, possibly fifty lectures would be too few, including demonstrations.

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8197. If you include demonstrations under the name of lectures?—Yes, in that case I think fifty is too few.

8198. You mean that fifty meetings would be too few for the purposes of instruction?—Yes. Of course a demonstration is very much a lecture. It is a lecture on the morbid parts; and therefore, including demonstrations, I think it ought to be a regular course of a hundred meetings.

8199. There is no Professor of Pathology in the University of Glasgow?—There is not.

8200. Do you think there ought to be a Professorship of Pathology?—Yes, I think so.

8201. Would you make it a Professorship of General Pathology, or Pathological Anatomy?—Pathological Anatomy.

8202. Would you be kind enough to explain the difference between the two?—General pathology includes a general disquisition on disease. It partly embraces pathological anatomy, but it embraces only a department of it; that is to say, the diseases which are not specially localized, —which are general to the system, but are not specially localized. It includes, however, a great deal more. It deals with the philosophy of disease, with the causes of disease in general, and with the modes of death. It embraces hygiene; it even may be made to include therapeutics, so that, in my view of it, it is not directly a practical subject. Whereas pathological anatomy connects itself definitely with the changes which occur in disease, and while it may be made to include a portion of general pathology, that is to say, it may be made to include the general diseases of the body so far as they manifest themselves in changes in the organs, it goes very much further, and takes up individual diseases; and I think it is very important that the student should be confined to practical work.

8203. In short, you think general pathology embraces too much to be the subject of one course?—It embraces too much and too little. It does not take up the special organs. Properly applied, it does not take up the special diseases, and that is a very serious objection.

8204. It professes to embrace too much, and, in fact, it embraces too little practically?—Quite so.

8205. So that you would prefer that any new chair in this department should be called a chair of Pathological Anatomy, to make sure that the teaching should be of that practical kind that you desire?—Quite so; but there is a possible objection to pathological anatomy, that, on the other hand, it might include too little. For instance, it has been stated to me that properly speaking pathological anatomy does not include inflammation, which of course is a very important part of pathology. But inasmuch as inflammation expresses itself in some change in structure, and inasmuch as every book on pathological anatomy which I know of includes inflammation, I don't think that objection holds. And so with some other general affections. Pathological anatomy includes the general affections which express themselves in changes in the organs.

8206. You would think it an improvement, then, that pathological anatomy should be the subject of a professorial chair rather than be taught as at present by yourself?—Yes.

8207. The only instruction in pathological anatomy which is available in Glasgow at present, I suppose, is in your Western Infirmary and in the Royal Infirmary, where there is also a pathologist?—Yes.

8208. Is there any other change that you would suggest in the course of study for graduation in medicine?—Not in the course of study.

8209. Or in the regulations for graduation?—There is a matter con-

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connected with the regulations for graduation in medicine,—the examination is in general pathology as it at present stands.

8210. Is that in the third examination?—Yes.

8211. And you would substitute for that pathological anatomy, I suppose?—I would.

8212. That is quite in accordance with your view upon the teaching?—Yes.

8213. There is no other change you would suggest, is there?—There is one other matter which I have no very direct authority to speak on, but from my own experience as a student it ought to be considered. I refer to the preliminary examinations—as to the mode in which they should be arranged for. My impression is, from my experience as a student, and from the opinion of other students, that by a recommendation or by some regulation, students should be required, before going in for their preliminary examination, to attend certain courses of lectures.

8214. You mean in Arts?—In Arts; or if you include in the preliminary examination some of the correlative branches, such as botany or chemistry, to make perhaps these courses and perhaps physics necessary to be attended—especially physics. From my own experience, I consider that a student is not at all in a position to get up the subject of natural philosophy without attending classes and seeing demonstrations. By reading at home it is quite impossible.

8215. Natural philosophy is one of the subjects of the preliminary examination, is it not?—It is.

8216. And you would desire that in order to qualify the student for passing on that subject he should have received University instruction, or some equivalent to University instruction, on that subject beforehand?—Yes, I think that is very important.

8217. You consider, I suppose, that that is a subject on which a medical student ought to be instructed?—Certainly.

8218. Do you speak of natural philosophy generally, or experimental physics?—Experimental physics specially.

8219. Then I understand you would desire that before the student commences his professional studies in the medical faculty, he should have received his instruction in experimental physics, in botany, and in chemistry?—Quite so.

8220. And that these should be subjects of the preliminary examination?—Quite so.

8221. In addition to the other subjects at present required?—Yes. I have not looked specially at that, but I think these ought to be compulsory, and probably some of the others might in that case be made alternative.

8222. But these three you would insist on as indispensable?—Quite; and attendance on classes in these as indispensable.

8223. Either in the University or the teaching of some recognised extra-mural teacher?—Quite so; and in this relation my experience is, that the first year of a student's attending at college, if he goes directly to a special professional subject, is pretty much lost. As a matter of fact, the student in his first year pretty much learns how to study, and I know that in anatomy, at the end of the first year, students are only beginning to open their eyes to the mode of studying it.

8224. The first year's course of study in the Medical Faculty at present embraces chemistry and botany?—Chemistry and anatomy.

8225. Does it not embrace botany also?—Botany is always a summer class, and it is generally taken the summer after the first winter. Sometimes it is taken the summer before the first winter.

8226. And natural history?—It is taken almost always the summer after the second winter.

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8227. You would not, in the case of natural history, anticipate the study of that subject at all before commencing the regular professional study?—No, I think anatomy is almost necessary to be studied before natural history.

8228. That is, before zoology?—Before zoology—which is the part of natural history important for medical students.

8229. What are the subjects of the preliminary examination that you would be inclined to make optional or alternative?—The modern languages. But I have not directed my attention sufficiently to that subject.

8230. You have not worked out the idea into any scheme?—No, I have not. The subjects of the preliminary examination are, according to my ideas, capable of very great modification. Included in the optional subjects are natural philosophy and natural history, both of which, I think, ought to be compulsory subjects. Natural history is virtually a compulsory subject, because it is taken in the medical course. The others that are put down as optional subjects might very likely remain as optional subjects, but, I think, there might be some special emphasis laid upon Greek, as it is of much more importance than some of the others.

8231. *Dr. Muir.*—You would like to retain Greek?—It is at present an optional subject, and I think it ought to be retained as optional.

8232. But not as compulsory?—It is not at present compulsory.

8233. *The Chairman.*—And you would not propose to make it compulsory?—Not absolutely compulsory. But there should be more emphasis laid on it than on such subjects as logic and moral philosophy.

8234. You think it more valuable to the student of medicine than either of those two latter?—Yes. Then if more encouragement could be given to the modern languages, French and German, it would be of very great consequence.

8235. You think more encouragement should be given to the study of French and German?—Yes.

8236. In short, you would give more weight to proficiency in Greek and in the modern languages than you would to logic or moral philosophy?—Or higher mathematics.

8237. That is to say, pure mathematics?—Yes. Of course the elements of mathematics are included in the compulsory portion.

8238. The Professor of Pathological Anatomy, if there were one, in the University of Glasgow, might have a difficulty in finding subjects for his demonstrations, unless he were connected with an hospital?—Quite so.

8239. How would you propose to get rid of that difficulty?—My idea is, that if the directors of the Western Infirmary were approached by the Commission before any such chair were instituted, it would not be at all difficult to come to some arrangement. There are various possible arrangements. One of them that suggested itself to my mind is that the Professor of Pathological Anatomy should have the use of rooms in the Western Infirmary. At present I lecture in the Western Infirmary, and I think it very important that that should be continued.

8240. You would not propose to do away with the pathologist of the Infirmary, although the Professor of Pathology lectured there?—No, not at all. If it was arranged that the Professor of Pathology should lecture in that room and should have the use of the material, then the difficulty would be in great part got over, even though the Professor of Pathological Anatomy were not pathologist.

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8241. But of course this could be done only by arrangement with the directors of the hospital?—Quite so. Another possible solution of it would be, that the pathologist of the Western Infirmary, if not the Professor of Pathological Anatomy, should be by virtue of his office assistant to the Professor of Pathological Anatomy.

8242. That must be a matter of arrangement also?—That would need to be matter of arrangement.

8243. With the directors of the hospital?—Yes. My idea is that the thing must necessarily be matter of arrangement, and I think it ought to be matter of arrangement before the chair is instituted. There have been chairs instituted without the matter being gone into beforehand, and possible difficulties might arise from that. But if it is gone into before the chair is instituted, I anticipate that the directors would be found exceedingly reasonable and exceedingly willing to make a proper arrangement.

8244. At present are the clinical lectures of the Professors of Medicine and Surgery delivered in the Western Infirmary?—Yes.

8245. Is that by arrangement with the directors?—It is because the Professors of Medicine and Surgery are physicians and surgeons to the hospital. All the physicians and surgeons lecture clinically. It is not because they are Professors of Medicine and Surgery that they lecture; it is because they are physicians and surgeons.

8246. But you have a Professor of Clinical Medicine, have you not, in the University?—Yes.

8247. And also a Professor of Clinical Surgery?—Yes.

8248. Have they any privileges in connection with the hospital by reason of their holding these chairs?—I understand not.

8249. Have they been made physicians and surgeons to the hospital because they held these chairs?—I think not.

8250. Were they so beforehand?—I don't know as to the exact date, but I don't think the two have any official connection whatever.

8251. Would it not be desirable that these clinical professors, as well as the Professor of Pathological Anatomy, should by some arrangement have official connection with the hospital and a right to the use of the hospital?—I think it would be desirable, not only that the clinical professors, but that the systematic Professors of Surgery and Medicine should have an official connection.

8252. That is to say, the Professors of the Practice of Medicine and Surgery?—Yes.

8253. What is the object of their connection with the hospital?—That their teaching may be illustrated in actual practice to the students.

8254. To give them an opportunity of practical teaching, that is to say?—Yes; and I think that lectures given *ex cathedra* are not of much use, unless in addition the professor can get at the student practically.

8255. All the tendency of medical teaching in the present day is to a practical course?—Quite so.

8256. And of that, I presume, you approve?—Very much.

8257. Would it be necessary in connection with the proposed Professorship of Pathological Anatomy to have any provision of assistance and apparatus?—I think the provision of an assistant would be a very important matter, chiefly with the view of encouraging scientific medicine. One can always get an assistant to do the sort of general work very easily, but I think that encouragement should be given to men who would devote themselves to actual scientific work, with a view to breeding teachers; and I anticipate that if a moderate salary were attached to an office like that, we might get men to remain for two or three years working at

the subject, spending their whole day at the subject, and so bringing out scientific work which would be of value.

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8258. I think you suggested already that the pathologist in the Infirmary might be the assistant to the professor?—Quite so.

8259. You would think that a good arrangement, would you?—It was a suggestion. It is possible there might be better arrangements. That is an alternative arrangement. I should not be prepared to say that I give my adherence to it absolutely.

8260. You don't seem to say that it would be the best arrangement?—I don't mean to say that necessarily it is the best arrangement.

8261. Suppose he were not the assistant, what salary do you think would be necessary in order to provide the sort of assistance that you would desire to have for the professor?—I think it would be possible to get an assistant for £50 a year.

8262. With the prospect of his remaining for some time?—If he was an enthusiast he would probably remain at that salary.

8263. He would be none the worse of a little more, I suppose?—Certainly not. I have been thinking of a man who is with me at present. He has taken all his classes, but does not go up for his degree examination till April or July, and so he is able at present to devote his time to the work. But a man like that, if he could be encouraged to remain for two or three years, would very likely turn out a very good scientific man. Of course a man without money, when he graduates, would go off into practice.

8264. Is there much in the way of apparatus required for this chair?—There is not a great deal required.

8265. What sort of apparatus is it?—There is a certain amount of experimentation which it is proper to conduct in connection with pathological anatomy—apparatus for registering the results of experiments on animals, and apparatus for keeping animals, and arrangements for feeding them; also apparatus for examining parts of the human body. Some of these apparatus are very necessary.

8266. Would you require anything in the way of collection of specimens?—At present there is an arrangement of that kind, the hospital providing spirits and jars.

8267. But I mean a pathological museum?—That is what I am referring to. Both the Royal Infirmary and the Western Infirmary provide material for collecting a museum, and I don't expect they will ever withdraw that. I think that is part of the work of the hospital.

8268. Under any such arrangement as you are contemplating, of course, they would allow the use of these collections to the professor for conducting his lectures?—I understand so. At present they are intended for the use of the Clinical Professors and the Lecturer on Pathology.

8269. Is there any other matter connected with medical teaching or graduation that you desire to offer any suggestions upon?—I don't think there is.

RICHARD VARY CAMPBELL, Esq., LL.B., examined.

8270. *The Chairman.*—You are a member of the Faculty of Advocates?—I am.

8271. When were you admitted to the bar?—1864.

8272. You took your degree of Master of Arts at Glasgow, I think?—Yes,

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8273. With honours?—With honours.

8274. And you afterwards took the degree of Bachelor of Laws in Edinburgh?—Yes. I also studied law in Germany, at the University of Heidelberg.

8275. You are at present, I think, an examiner in Law in the University of Glasgow?—Yes.

8276. You have taken a great interest, I believe, in University matters?—A considerable interest.

8277. Have you considered the present course of study required for graduation in Arts?—I have had in view mostly my own experience of it.

8278. Do you think it desirable to make any change on that course of study?—The only thing that has occurred to me as a student has been the want of a chair of History. I have felt that want myself, and I think it a great defect that it should be possible for a man to take his degree in a Scottish University, and yet be utterly ignorant of history, except the classical history he is compelled to learn in connection with the Latin and Greek classes. I have always felt that.

8279. Would you be disposed to introduce the subject of history as an imperative subject into the curriculum?—I think there are plenty of subjects already for the degree, and I should be very sorry to see the students compelled to take any more. Indeed, I have always thought that we err in Scotland on the side of having too many subjects, sacrificing thereby accuracy to mere quantity. But I think that students should have the option, at all events, of taking history as part of their regular course for a degree in Arts.

8280. In place of what?—I would leave the choice to persons who know more about it than I do. Speaking for myself, I should suggest that it ought to be in place of mathematics. I have no turn for mathematics, and it was a grievance to me to be compelled to study the subject. It would have been much more useful to me if I had had the option of studying history.

8281. There is not in any of the Universities a chair of History in the proper sense of the term?—I think not. Even the chair in Edinburgh, which is the only one I know of, is a chair of Constitutional Law as well as History.

8282. In order to the subject being properly handled, I suppose you would require such professorships to be established?—Yes; indeed I cannot believe a University to be complete without a chair of History, and I would suggest that for any Law degree the study of history should be made compulsory.

8283. *Mr. Campbell Swinton.*—Would you not then be obliged to eliminate something from the present requirements for the degree in Law?—The degree of LL.B. requires history at this moment; but I wish to suggest that there should be a junior degree of a lower standard than the present LL.B. degree, and in that junior degree I think history should be made compulsory.

8284. *The Chairman.*—Are you speaking of an inferior degree in the Faculty of Law?—Yes.

8285. Is there not such a degree recently introduced in Edinburgh?—There is one for all the Universities by the Ordinance of the first Commission, No. 75; I think the date is 1862.

8286. That is the degree of LL.B.?—Yes.

8287. But I am speaking of such an inferior degree as you are now referring to?—There is also the degree of B.L., introduced by an Order in Council of 6th August 1874.

8288. Does that degree so introduced satisfy the object that you have in view?—It does. I think it is a very fair and reasonable Law degree.

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• 8289. Have you any suggestion to make with regard to the regulations respecting that inferior degree in Law?—I should like to see it have such privileges as would induce the great majority of students for the profession to take it. In particular, I should like to see it made a qualification for passing as a law agent under the recent Law Agents' Act. I think it is of great importance to keep the profession connected with the Universities, and I don't think we gain anything by following the example of English lawyers, who are trying to establish separate law schools and examining boards. We have always had law schools in Scotland connected with our Universities; and I should like to see the profession of the Law connected with the Universities much as the profession of medicine is, and the taking of a Law degree of a fair standard become as common as taking the M.B. or M.D. degree in Medicine. As to the LL.B. degree, I may say that it is pitched at such a high standard that practically the great majority of law students cannot take it. A man must be a Master of Arts before he can proceed to the degree. And then the course of study required is long. It is much more than the great majority of students can take; and only a minority even of those admitted to the Faculty of Advocates take the degree at present. Now if we had a standard such as B.L., I should anticipate that all good students would take the junior Law degree on their being assured of some practical advantage beyond the mere possession of the degree. It would be a great privilege in particular to a student to take that degree at college, and be able afterwards at the age of thirty, or at a period when a man does not care to submit to examinations, to produce his diploma to the Court for admission and be received at once, without further examination, as a law agent. I have spoken with one or two students who have in view to be law agents, and they consider that to be of great importance to them.

8290. As the matter stands at present, do you think the examination for the degree of B.L. is quite equal to the examination required to be passed by a law agent before admission to the profession?—I think it is quite equal. The only thing that exception might be taken to that I can see on looking at the regulations of the Court is, that there is no examination in Court-procedure at the University for the B.L. degree. It may be said that that is compensated by a higher standard in regard to the other law subjects and the literary subjects required for the degree; but I don't see why the Universities might not introduce lectures and an examination on process. I see nothing below the dignity of the University in lecturing on process law. It is done in Germany, where there are learned books upon it and lectures upon it.

8291. Perhaps an examination in process might be added to the present examination for the degree of Bachelor of Law, without the necessity of its being actually taught within the University?—It might be so.

8292. Because the learning of process is practical rather than theoretical?—No doubt of it. I may mention that I was counsel for two Bachelors of Law (B.L.), and we applied by petition to one of the Lords Ordinary to get the degree accepted; but the Lord Ordinary—Lord Curriehill—after consultation, I believe, with the head of the Court, declined to accept the degree as a qualification for admission as law agents.

8293. As not being within the qualifications prescribed by the Act of

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Sederunt, I presume?—The Court have absolute power under the Act of 1873 to satisfy themselves in any way they think fit of the qualifications of a candidate, and I should have thought it quite a suitable exercise of their discretion to accept the B.L. degree of the petitioners.

8294. But the Act of Sederunt prescribes certain degrees as being sufficient, does it not?—The regulations of the examiners appointed by the Court say that, with a degree of any sort, from any University, the candidate shall not have to pass an examination in general knowledge.

8295. A degree of any sort?—A degree of any sort, from any University, in Law or Arts, or even in Medicine, will pass the candidate in general knowledge; but he will have to pass in Law besides. I was also counsel for an LL.B., and that degree was accepted by the Court. The Procurators' Act of 1865 contained in section 11 an express provision that a degree of Bachelor of Laws should be accepted as in lieu of any entrance examination; but that provision is not repeated in the Law Agents' Act of 1873.

8296. The suggestion which you are now making as to the degree of Bachelor of Law being a passport into the profession of law agents is one that will require to be regulated by the Court?—Probably; or it might be done in any University Act to follow this Commission. It might be made compulsory on the Court to accept B.L. as a sufficient qualification for admission as law agent. There is one important consideration in favour of this course, that now admission to the General Council can only be got by having a degree. Now, if you don't institute some working Law degree, the legal profession will cease to be represented in the General Council, which is a thing to be deprecated.

8297. But that evil is cured by the introduction of the B.L. degree?—To some extent it is; but the mere privilege of admission to the General Council does not form a sufficient attraction.

8298. But the evil of the legal profession not being sufficiently represented in the General Council is cured by the introduction of the B.L. degree?—But unless you confer a further practical privilege upon it, you will not get the students to take it in sufficient numbers. It is only specially good students who will trouble themselves with it. We have had experience of that in Glasgow, where Professor Berry and I have had examinations for that degree. It is only specially good students who take it at this moment,—such as have a turn for study; but if you made it a matter of practical advantage, by constituting the degree of B.L. a certificate which a man could produce ten or twenty years afterwards, when ready to pass as an agent, that would, I think, induce the great majority of law students to take the degree. The LL.B. degree has decidedly not been a great success,—I mean as regards the number of candidates for it.

8299. There have not been a great many who have taken it?—No.

8300. And I believe none except in the University of Edinburgh?—There is one LL.B. in the University of Glasgow. It is competent in all the Universities, but the difficulty is that the complete course does not exist in any University except Edinburgh.

8300*. There is no fully equipped Law Faculty in any University except Edinburgh?—No.

8301. *Dr. Muir.*—Would it suit the requirements of the law that a degree taken ten or twenty years before should be operative whenever the person holding it wished to make use of it?—I think so, especially when it is remembered that no one can be admitted, whether with or without a Law degree, unless he has served an apprenticeship to the practical work of the profession. It is the same thing as a medical

student taking his degree of M.B. or M.D.; he need not go into practice at once after leaving college on his own account, but by virtue of his degree he can get registered at any time he likes and begin to practise. Now, when a law agent is passed by the Court, he is put on a register, by which he is enabled to practise, to sue for fees, and to take out an attorney certificate. If a good student takes his degree in Law he should be allowed, upon production of his diploma of B.L., to pass as an agent when he likes. It is particularly hard on elderly men, who have served a long time as clerks, to call on them to pass an examination on subjects fixed by Act of Sederunt, without having ever given them the chance of taking a degree before they left college which would save them from further examination.

8302. *The Chairman.*—You would not propose to make the B.L. a sufficient qualification to become a member of the Faculty of Advocates?—At the present moment they accept the LL.B. It was proposed that they should take the B.L., but they did not take it. But I think the policy of the Faculty has been to preserve the matter of education a good deal in its own hands.

8303. The qualifications for entrance to the Faculty have always been regulated by the Faculty themselves?—I think so; with public approval generally.

8304. But the regulation of the qualification of candidates to become law agents has been fixed by statute?—Yes; and I think it must be a mere omission that the provision in section 11 of the Procurators' Act of 1865, as to the qualification conferred by Law degrees, was not transferred to the Law Agents' Act of 1873. I have a very strong feeling, which is shared by a good many of the profession, against the policy of bringing the profession under a board apart from the Universities. We ought to keep connected with the Universities.

8305. Then you would rather abolish the present board of examiners?—I should look forward to do it.

8306. And transfer as far as possible the examinations to the University?—Yes; I would trust the examiners in the University, under the supervision of the Court, to see that there was a proper standard kept up.

8307. In point of fact, you are aware, I daresay, that the board of examiners for law agents at present contains a good many law professors?—Yes, but they are not there as representing the University.

8308. But I was suggesting that as perhaps showing that the change you recommend would not be a very radical change?—It might substantially only transfer the examination to the same gentlemen acting in a different capacity; but still it would be keeping up the proper position of the Universities relative to the profession. It would be necessary still to maintain the examining board for the case of persons who don't take the degree. It could not be abolished *de plano*.

8309. But if the board is to be maintained at all, would you not rather diminish the efficiency of such a board of examiners by giving them very little to do?—I think that is highly desirable.

8310. To diminish their efficiency?—To give the Universities all the advantages possible for keeping legal education in their own hands.

8311. But there is a little difficulty there, I think—that if the board must be maintained for the purpose of admitting law agents who have not had the benefit of a University education, the functions of the board can hardly be expected to be so well discharged when their practical experience would be so limited as it would then become?—The practical remedy, then, is very obvious; the Court might as well

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make their remit to the examiners of a particular University. They are not tied down to this particular board. Indeed this board finds it necessary to hold examinations in different localities. It examines in Glasgow or Edinburgh; sometimes also in Dundee and Aberdeen. But when a petition for admission as law agent is presented, why not remit it to the examiners of the University in the locality where the applicant resides?

8312. That would probably work without any difficulty in Edinburgh and Glasgow; but how about Aberdeen? Is there any board of examiners in law in Aberdeen?—I am not aware; but they have Law chairs there.

8313. One?—I don't know about Aberdeen.

8314. In St. Andrews there is none?—It would be no great hardship to be compelled to go to Glasgow or Edinburgh. The examiners in Edinburgh University might come in place of the board. It is well known that students of law throughout the country generally pass a certain amount of their college time in Edinburgh.

8315. You still would keep up the higher degree of LL.B., would you?—No; I would suggest that there should be just one junior degree, to be called LL.B. I think the title of B.L. is a mistake.

8316. Then would you have no higher degree in Law at all?—I propose to have the degree of LL.D. restored as an examination degree.

8317. And you would make the degree of LL.D. come very much in place of what the LL.B. is now?—Very much so. It might be necessary, as in the University of London, to provide that a man should not get his diploma of LL.D. till he is, say, twenty-five years of age, and in addition it might perhaps be required that he should write a thesis; but with some minor change of that kind, I think the conditions of the present LL.B. degree are very suitable for the LL.D. degree as an examination degree.

8318. *Mr. Campbell Swinton.*—Do you see no objection to the same title being given to a man who gains it by an examination, and to one who gets the degree *honoris causâ*?—I cannot say I do. The *honoris causâ* use of it should not be pleaded as against the proper use of this special degree. I confess I have a feeling which is shared by a good many lawyers, that the use of the LL.D. degree *honoris causâ* should not be continued. I don't think the Universities have distinguished themselves favourably in the way they have used that degree.

8319. *The Chairman.*—At the same time you are aware that the use of the degree of Doctor of Laws for the purpose of honorary distinction merely is of long standing, and not in the Universities of Scotland only, but in those of England?—I don't know the date when this use of the degree began, but it is certainly against the true use and meaning of a Doctor's degree. It is a modern abuse, I should say. The original idea of the degree of Doctor is that it is to be given in the usual course of study in the special faculty to which it belongs, and to be given as a distinction conferred for eminence in these special studies. Surely the duty of the University in being entrusted with that Doctor's degree in Law is to confer it with a view to the advantage and the improvement of the special studies for which the degree was given. With reference to other than Scotch Universities, I see that in the Queen's University of Ireland the student can proceed from his LL.B. degree to the LL.D. in the ordinary course of his law studies. Apparently, also, he can do the same in Dublin, and I know that he can do the same in London. I am not so sure with reference to the great English Universities, but I understand that a graduate in Law can go

on from B.C.L. to D.C.L. in the ordinary course of his special studies. And therefore no inconsistency is found to exist in the D.C.L. being obtained by a mere law student in Oxford, though it is also given *honoris causâ* to men of great eminence in the country.

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8320. *Mr. Campbell Swinton.*—But I rather think you would abolish the degree *honoris causâ* altogether?—I only claim that the Faculty of Law shall have the use of its own proper degree for the encouragement of its own proper studies.

8321. *The Chairman.*—You would be satisfied if the degree of Doctor of Laws for the purpose of conferring honour merely had not the effect of ousting the students of Law from their proper right to attain that degree upon examination?—That is so. I complain as an LL.B. that I am not allowed, if I choose, to proceed to LL.D. by way of examination. If the University gives me the junior degree of Bachelor, it implies that I can go on to the higher degree in ordinary course, and I do not see what right the University has to reserve the senior Law degree to be given at pleasure for any kind of distinction, and sometimes for none at all. If the Universities wish to give an honorary distinction to persons of eminence, I don't see why they should not be content to call them by some such title as Honorary Fellows of the University. That would not imply that a man was a Doctor in perhaps the only subject of which he knew nothing.

8322. Do you think that in the University of Edinburgh the Law Faculty is sufficiently equipped, or is there any department you think deficient?—Nothing occurs to me to suggest in that direction.

8323. You are satisfied with the number of professorships and the divisions of the subjects?—I think so as regards the professorships; but it has often occurred to me that the University might show more liberality in the way of establishing or recognising lectureships on special subjects. For instance, it is desirable to have a Professorship of Scots Law, but that is a very wide subject for any man to deal with efficiently; and, I think, the University has rather fallen behind the times in not establishing a course of lectures on mercantile law. Scotland is now a commercial and manufacturing country, and it would be only reasonable that we should cultivate commercial law with some attention. We have fallen behind the American law schools entirely.

8323*. Does not the Professor of Political Economy take up mercantile law?—He has got it added to political economy in rather a grotesque way, I think. There is evidently a public need for having special lectures on legal subjects. For instance, at the Juridical Society here, we recently instituted special lectures to meet the wants of young men engaged in law studies,—special lectures on insurance and various other subjects. The Juridical Society of Glasgow has also done this from time to time.

8324. Have these lectures been a success?—I think so.

8325. Well attended?—The lectures here have not been repeated; but in Glasgow, I believe, they are given from time to time, and are well attended. There is a body called the Bankers' Institute both in Glasgow and Edinburgh, which wants law lectures for its students. I have arranged to give lectures on the subject of bankruptcy and one or two commercial subjects to these students during this winter. I applied to one of the professors in Edinburgh to bring the matter before the Senate and get me permission to give the lectures in the University as a graduate of the University, but he thought it useless to make the proposal, and declined even to submit it to the Senatus.

8326. Was your proposal to lecture in the University?—I wanted to

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be announced as a lecturer in the University, and to be allowed a room in the University. The students would have matriculated in the University—at least I think they would if they had got the chance.

8327. Is there not a great practical difficulty at present about rooms in the University of Edinburgh?—We should have met in the afternoon or evening, and could not have interfered with anybody. It occurs to me that the University is hardly discharging its duty in looking after the intellectual development of any profession if it does not put itself at the head of such movements.

8328. The lectures which you are to deliver at the request of the Bankers' Association would be delivered, would they not, to young men who were going to follow the profession of bankers rather than lawyers?—It is so, and they would naturally have been delivered in connection with the existing chair of Commerce and Commercial Law.

8329. But supposing such lectures to be recognised by the University as part of their teaching, would you make attendance on these lectures equivalent to attendance upon any of the professors as is required at present for a Law degree?—In that matter I should follow the example given by the Medical Faculty. They recognise attendance on certain approved extra-mural lectures as qualifying for a degree. I should, under the same conditions and the same precautions, adopt the same principle in law.

8330. In short, you would extend the principle of extra-mural teaching to the Faculty of Law?—Precisely so. That has been done to a limited extent. I myself attended Dr. Littlejohn for medical jurisprudence. He is not a University professor, but his lectures were accepted, in my case, as qualifying for the degree of LL.B. The example of the German Universities in that matter is a good one, I think.

8331. *Mr. Campbell Swinton.*—But in the German Universities the teachers who are not professors rather teach in supplement to the professors' lectures than in substitution of them?—It might be so here too. You might allow a course of lectures on one set of subjects,—say forty lectures on contracts; let it be necessary that the student should produce a certificate of having attended eighty lectures altogether, and let him make up the number by attending on the professor or the recognised lecturer. I would not propose to have both a lecturer on Scots Law and a professor of Scots Law. The lectures would be on special subjects that the men had given special attention to.

8332. *The Chairman.*—Suppose there was a special lecturer upon mercantile law, would you accept of attendance upon that lecturer as equivalent to attendance upon one of the existing professors?—I think so.

8333. Upon which of them?—The LL.B. degree regulations at this moment require the student to attend a session of eighty lectures on municipal law.

8334. Scots law?—Scots law. Well, if this mercantile law lecturer extended his lectures over the whole eighty, I think that should be accepted.

8335. Accepted in place of the professor's lectures on Scots law?—Yes; but most probably a special subject like that would be treated of in a shorter space; and then the student might be allowed to supplement his attendance by going to another professor or to some other lecturer.

8336. Do you mean attending a part of the professor's course?—Yes. The course in Scots law is always divided into subjects, and one can take it up at any time. The student should be obliged to produce a

certificate of having attended eighty lectures, whether got from the professor or from a lecturer.

8337. But might he not attend them in such a way as not to get over the subject of Scots law sufficiently,—to be too much of a specialist? How would you avoid that risk?—I do not think it is possible at present in one session's lectures to go over all the subjects in Scots law. The same risk therefore attaches to existing arrangements.

8338. Would you allow a man to take his degree in Law who had never attended any lectures on the law of real property in Scotland?—He is bound by existing rules to attend conveyancing lectures, which include real property law. At the present moment how many men ever hear a word about criminal law in attending a University course?

8339. Is there not a special course in criminal law in the summer?—I never heard a lecture on it.

8340. But is it not since your time?—It may be so.

8341. Are you not aware that the Professor of Scots Law is bound to give a course of criminal law in the summer session?—I believe he does so.

8342. And that attendance upon that is required for the Bachelor of Laws degree, and is also, if I mistake not, required by the Faculty of Advocates from their candidates?—Attendance on lectures upon criminal law was certainly not required for LL.B. when I took the degree; and I do not find it mentioned in the existing regulations for that degree.

8343. But is it not the case that this course of lectures on criminal law has been instituted since you studied for the profession?—It may be so. Criminal law is an instance of a subject in which the competition of a lecturer could, I think, be well admitted. The law of process, servitudes, nuisances, slander, and consistorial law are other special subjects well suited for lectureships.

8344. Is there anything more that you have to suggest with regard to the Faculty of Law?—No, I don't think so.

8345. I think you have some suggestion to make with regard to the constitution of the General Council?—I understand there is a movement in favour of extending the powers of the General Council, and it has occurred to me that it would be almost unsafe to extend the powers of the General Council unless you made some arrangement for regular and responsible attendance. At the present moment the General Council in either Glasgow or Edinburgh is a large body,—certainly over 2000 members. Now the attendance at the meetings is fluctuating. It may be very small at one time and very large at another.

8346. It is never very large, is it?—It is never very large; but every graduate has a right to attend. But there is no interest taken in it, and the thing falls into the hands of a few people, who by a sort of self-election take the whole thing into their own hands. Now it occurs to me that it would be much more reasonable to make out of the General Council a representative body. Why should not the law members on the register have power to elect so many representatives; the medical graduates in the same way; also the theological and Arts graduates; and so constitute a manageable body. Men so elected would be representative men of different professions, and would have some responsibility from their position; and you could grant powers to them safely. But at present I don't see how further powers can be entrusted to a mere crowd or mob of 2000 persons.

8347. It is too large a body for executive or administrative purposes plainly?—Quite too large.

8348. But is it necessary to constitute such a body as you are

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suggesting for the purpose of discharging any functions that are not at present very well discharged otherwise?—I confess that I think a graduate of the University is as much a member of the University as a professor or anybody connected with it. I think any one representing the graduates has a right to a full and fair voice in the management of the University. We are entitled to something more than merely to be consulted, or to have a right of merely making suggestions to the University Court. At present the General Council in session is a mere debating society, which it is not worth anybody's while to attend.

8349. You have already two governing bodies in the University: do you think it desirable to add a third?—Not in the least. There are too many governing bodies. I don't see why we should not amalgamate the Senate with representatives of the General Council, and make them together a sort of Lower House, retaining the University Court as an Upper House, but reserving to the professors the special powers they at present have as to the patrimony of the University. They should be a committee on that specially. But I don't see why representative members of the General Council should not sit along with them to regulate such matters as the choice of subjects for a degree or for the entrance examinations, to regulate summer sessions, and perhaps also to consult as to the appointment or recognition of lecturers on special subjects. It is surely desirable to get from outside people not interested pecuniarily in the University the suggestions that naturally arise in their minds as to the proper administration of the University generally. I don't want to interfere with the money of the University, but we should have power to bring our opinions as educated men of the outside public to bear on the proper government of the University. We would make good suggestions as to the choice of subjects for special lectures, for instance, or subjects for degrees in Arts. We should do that well.

8350. *Dr. Muir.*—Could that not be done once for all?—But you must secure the possibility of change from time to time, so as not to have Parliamentary legislation, or a Commission every ten years.

8351. *Mr. Campbell Swinton.*—If it was only to make suggestions as to such subjects as the establishment of lectureships, that could be done, surely, by the General Council such as it is?—I intended more than suggestions. I meant that they should have the power of passing statutes or ordinances for the University. We should require, like the Lower House of Parliament, to get our statutes passed by the University Court. We should have power to bring in a Bill on subjects affecting the management of the University, and to vote upon it, and then to send it to the Upper House; and the University Court should be obliged to submit any measure, with reference to such matters as might be committed to us, to the Lower House to be there passed or rejected.

8352. How large a body would you make this amalgamated body of the *Senatus* and graduates?—The elected members representing the graduates on the register should not exceed about fifty; add to these the professors, who are twenty or thirty, and that would give you a manageable body.

8353. With regard to the General Council, you have spoken of the unsatisfactory nature of their meetings from the few who attend. Do you think it would be an advantage that there should be a certain quorum fixed—that they should not be entitled to transact any business unless a certain number was present?—That would probably prevent too small a number acting in name of the General Council; but so long as you leave it possible for a crowd of persons to come in, it would be dangerous to entrust them with greater powers than they already have.

8354. *The Chairman.*—Did you ever see a great crowd come in and do anything?—At first I think the numbers were tolerable, but they dwindled down as people discovered that it was only a rather dreary debating association.

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8355. What is the largest meeting you ever saw?—I never attended a meeting of the General Council in Edinburgh, but I have in Glasgow.

8356. Did you ever see two or three hundred there?—There might be over a hundred,—from one hundred to two hundred. I think the institution of registration of all graduates in the form of a General Council under the Act of 1858 has been a most beneficial thing for the University, supplying what was greatly wanted, viz. keeping up the connection between the graduates and the University. I think it has been beneficial both for the graduates and the Universities.

8357. Then unless your own project was carried through, you would leave that as it is, I presume?—As regards powers.

8358. The ventilation of subjects of discussion before the General Council has been useful?—Probably it has.

8359. *Mr. Campbell Swinton.*—Would you give them additional representation in the University Court?—I have not considered that.

8360. *Dr. Muir.*—Supposing that these representatives of the General Council were appointed, might they not be utilized in some other way as a consulting body to make representations to the University Council?—What I propose is to have only two governing bodies in the University,—the Senate and the University Court, and to make the representative members of the General Council go in to the Senate and sit there.

8361. Abolishing the General Council altogether?—As a governing body exercising its functions directly, but to retain its place through its representatives in the Senate with widely increased powers in the government of the University.

Adjourned.

FRIDAY, 8th December 1876—(Forty-Sixth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

JOHN M'LAREN, Esq., Advocate, examined.

8362. *The Chairman.*—You are a member of the General Council of the University of Edinburgh?—I am.

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8363. You have been in the habit of attending the meetings of the General Council, have you?—I have attended pretty frequently, especially of late years.

8364. And you have taken an interest in the proceedings of the University generally, I suppose?—Yes; I have occasionally made propositions at the meetings of Council, and have been a member of several of their committees.

8365. Do you think that any change should be made in either the constitution or the powers of the University Court?—With regard to the constitution, I concur in the general opinion of the members of Council

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who take an interest in the question, that they should be represented by a larger number of members in the University Court. I don't know how far my views, as to the mode of giving effect to this opinion, may coincide with those of the Council generally, but I should be inclined to propose a more simple mode of selection. I think the present system is open to objection, particularly, in so far as it recognises the principle of private nomination—the nomination of one member of the University Court by another; not that good men have not been obtained under the system, but that the system itself in my view is not the best, and I should prefer, therefore, that the constitution of the Court should be elective, and that its members should be chosen, partly by the Council and partly by the other governing authorities—the Crown and the *Senatus Academicus*.

8866. But does the Crown at present appoint any members of the University Court?—Not in the case of the Scotch Universities, I believe, but in those of England and Ireland the Crown has influence.

8867. Then what would you propose that the constitution of the Court should be?—In the first place, I should suggest that the Chancellor ought to be a member of the Court. He may be, and sometimes is, resident, and I think would render valuable assistance in the deliberations of the Court, and his official position, whether he is resident or non-resident, entitles him to a seat in the Court. Then, with regard to the Lord Rector, it appears to me to be rather an anomalous constitution, the election of the Lord Rector by the students. It is a tradition of the old Middle Age University system, in which the students or scholars, who were not boys but men of letters, like the fellows of our learned societies, elected their Rector, who was an official of high station and had large powers and jurisdiction. Still, as this office has survived in our Universities, although the mode of election has ceased to have any significance, I should not propose to interfere with it. The students do elect men of eminence in letters or science, who, if they are able to be present at its sittings, are among the best class of men to act on a University Court. Then the Principal, in right of his position as vice-Chancellor, ought, I should say, to be a member of the Court. In addition to these three official members, I think there might be a somewhat larger number of elected members than there is at present, making a court of from twelve to fifteen members in all.—On this subject the constitutions of the other Universities in the United Kingdom may be considered with advantage. I observe that in the Universities of Oxford and Cambridge the governing body—the Council—is elected by the Congregation, consisting of all graduates who are resident within a certain distance of the seat of the University. In Oxford, I think, there are eighteen elected members in addition to the Chancellor, the vice-Chancellor, and the proctors, who are members *ex officio*; and of these eighteen, six are to be chosen by the Congregation from amongst the heads of colleges, six from the professors, and six seats are open. The constitution in Cambridge is similar. I think the number is sixteen, eight seats being open and eight to be filled by election from heads of colleges and professors. In the Queen's University in Ireland, where I presume there is not a very large resident body of graduates, the chief share in the appointment of the governing body is vested in the Crown. Under the existing charter of the London University, the Crown nominates thirty members individually; and provision is made that as vacancies occur they are to be filled up in the proportion of three-fourths directly nominated by the Crown and one-fourth indirectly nominated by the convocation of graduates. A preponderating influence is thus reserved for the Crown, because in a city like London you could not depend on the co-operation of a large resident body of graduates.

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It occurs to me that Scotland occupies an intermediate position between Oxford and Cambridge on the one hand, and the Universities of London and Ireland on the other, and that the members of our University Courts other than those who are members *ex officio* might be nominated in certain proportions by these three sources of authority, the Crown, the graduates, and the professors. The proportion might be fixed at one-third to the Council, a third to the Senatus, and a third to the Crown. Or it might be arranged that instead of the Senatus directly electing representatives from their own body, the University Council should elect say a half or two-thirds of the members of the University Court, but that out of that number so many must be chosen from the Senatus Academicus. The object of this limitation is to ensure that so many of the elected members should have a practical acquaintance with the working of the University as a teaching institution. I don't presume to suggest what is the right proportion. I make the suggestion of an elected University Court as being, in my view, preferable to a court consisting of official members and of assessors nominated by the official members. I think the public would have greater confidence in a board that was elected by these sources of authority in the University than in one constituted under the present arrangement, in which there is no responsibility to any constitutional body.

8868. How many members do you contemplate having in the Court upon that scheme?—Not more than double the present number; say from twelve to fifteen, of whom three would be official members.

8869. Do you think that a body as large as fifteen would be as well able to do the business of the University Court as the present number?—Considering that it is an appeal court from a much larger body—the Senatus Academicus—it does not occur to me that it would be objectionable on the score of increased numbers.

8870. The governing bodies that you have referred to in other Universities exercise the whole powers of government in the Universities—the whole powers that are divided in our Universities between the Court and the Senatus?—I believe they do so, speaking with regard to University functions, but in Oxford and Cambridge it is the colleges that carry on the work of teaching, and no doubt the powers corresponding to those of our Senatus would to a certain extent be exercised in Oxford and Cambridge by the colleges.

8871. As far as regulating teaching is concerned?—Yes.

8872. But in regard to the administration of the property and revenues of the University, the governing body in Oxford and Cambridge would exercise the whole powers of the Senatus with us, and also of the Court?—No doubt; but I say so with the reservation that a great share of the property which is appropriated to education in Oxford and Cambridge is vested in the colleges.

8873. It belongs to the colleges, no doubt, but all the property belonging to the University is managed entirely by that governing body?—Yes; the Council of Oxford, for example, is not an appeal court simply, but a body exercising original powers.

8874. Is it an appeal court at all?—I am not aware. I believe it is a legislative body. I observe that the Councils of Oxford and Cambridge propose laws to the congregations of graduates, and that the congregations have the power of accepting or rejecting them, and to a limited extent of making amendments.

8875. You have not exactly explained to us to what extent or in what proportions you would have the Senatus and the Council represented in the Court?—What I would suggest as the preferable arrangement would

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be, that the Crown, the Council, and the Senatus should elect in equal proportions, each nominating a third of the representative members of the Court; but I know that many members of Council hold that the Council should elect at least one-half of the representative members, and, in that view of the case, I would suggest that the Council should be limited in their selection by being obliged to choose a certain proportion from among the professors of the University.

8376. Have you anything to suggest as to the powers of the Court?—I think the powers of the Court should be very extensive, as they are at present under the operation of the Universities Act; and subject to the existing control of the Queen in Council, I see no harm in giving to the University Courts the widest powers of effecting internal improvements which are practicable and consistent with the fundamental principles of the University.—I have one suggestion to make which has reference to the University Court of Edinburgh. It is in a singular position in this respect, that it exercises no patronage. I believe that the constitution of the board of curators under the Universities Act was the result of a compromise of opposing interests, one party being favourable to a transference of the patronage from the Town Council to the University, and another party supporting the Town Council on the ground that it had for a long time administered its patronage well. It appears to me, however, that either of those bodies would separately make a better court of patronage than a joint commission elected by the two. I think that public opinion in Edinburgh has undergone some change since the date of the Act, and that it might be practicable, and would be desirable, to transfer the patronage to the University Court, or to divide it, if thought proper, leaving a certain number of chairs in the gift of the Town Council. I don't think that two such heterogeneous bodies as the University Court and the Town Council can very well combine for the performance of the delicate duty of administering patronage.

8377. Then your suggestion is that the patronage should be transferred to the University Court to a great extent?—Yes.

8378. Would you transfer the whole of it that is now vested in the curators?—I would propose to do so, with due regard to special cases. The claims of the Town Council would be recognised by assigning to it the patronage of such chairs as might be most fitly entrusted to popular election.

8379. Do you think the functions of the General Council ought to be altered in any way, or extended?—I don't think that the Council is a body fitted for the work of administration, but I should be favourable to giving the Council a larger share in the business of University legislation. Under the present law the Court proposes regulations, these are sent to the Council for consideration, and are considered at the half-yearly meetings; but there is no provision that the views of the Council shall receive due consideration at the hands of the University Court, and, in fact, the Council can effect nothing except on the condition of being able to convince the Court that their views are right. I am of opinion, in common with many members of the Council, that if the Council report against a new regulation, or suggest an amendment upon it, the regulation should not be allowed to take effect until the Court has taken their representation into consideration, and, in case of difference of opinion, not until the Council has had the opportunity of considering the question a second time. If the matter were of great importance, I think the Court ought to have power to take the sense of the whole Council by issuing voting papers, because the attendance at the half-yearly meetings is not always such as to ensure a fair representation of the opinion of

the collective body of the Council. In matters which the Court judged not to be of sufficient importance to justify the sending out of voting papers, the Court should itself decide ultimately.

8380. You don't propose that the Council should have an absolute veto upon a proposal of the Court, do you?—No; only a power of delaying it.

8381. That is to say, merely ensuring further deliberation?—Yes; and that the Court should assign reasons for rejecting the proposals of the Council. That, I am aware, is not in accordance with the practice that I have referred to at Oxford and Cambridge, where the congregation of graduates has a veto. But the difference is, that there you have a large resident body of graduates, who are deeply interested in the prosperity of the University, and who attend the meetings, and you in that way obtain an expression of the opinion of those who are best qualified to judge; while at the meetings of the Scotch University Councils the attendance is very fluctuating, and while now and then you may have a large attendance with reference to some important public question, you cannot count on that as the regular state of things.—Another suggestion which I have to make is, that at one of the half-yearly meetings a report might be presented, either by the Senatus or by the University Court, to the Council,—a report drawn up by a committee of the Senatus regarding their transactions during the past year, and the financial condition of the University. I had intended to mention this point under another head—the financial position of the University—but the two things in my view are nearly identified, because any report upon the University for the past year would necessarily bear reference to its financial condition. Such a report would be an inducement to members to attend the Council meetings, and would give occasion for discussion and for useful suggestion at times; but my great object would be to have some standing business for the meetings which would always be expected, and which would attract members who are interested in the University. I may remark, that in all corporate societies, whether trading or non-trading, it is usual that the directors or managing committee present an annual report to their constituents. The report is generally the chief business at the annual meetings of corporate bodies, and any propositions submitted to these meetings often take the form of amendments or additions to these reports.

8382. *Dr. Muir.*—What subjects would you have embraced in these reports?—It is rather difficult to say off-hand, but of course any change of policy or any novelty in the administration would be noticed; any additions to the University funds, any re-arrangement of classes which might be thought to be beneficial; or suggestions as to new duties. The report would contain a *resumé* of the business transacted during the year, for the information of the members of Council.

8383. Of things that had come before and been discussed by the Senatus Academicus?—Yes, or things that are proposed. Of course I am aware that under the present rules new propositions are sent down.

8384. *Mr. Campbell Swinton.*—Would you have the Council come to decisions approving or disapproving such a report?—I don't think it would be necessary or desirable that a formal motion should be made approving of the report, but it should be in the power of any member of Council to raise, by representation, any question arising upon the report.

8385. By representation to the University Court?—Yes.

8385*. *The Chairman.*—Do you mean that this report should be sent to the Council by the University Court?—The object I have in view would

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be served by a report either from the University Court or from the Senatus; but probably the Senatus would be the body best able to draw it up, from being most conversant with the details of what had been done, and I think it preferable that the report should be prepared by the Senatus.

8386. A report seems rather an unfortunate expression. It rather imports that the body making the report is in some degree subordinate to the body reported to. If you want merely to have laid before the Council at its stated meetings a statement of the action of the University during the preceding year or half-year, of the changes which have been made, and of the course of administration and its financial condition, that might be obtained, surely, without calling in the action either of the University Court or of the Senatus? Don't you think it could be done otherwise?—In what way does your lordship suggest?

8387. By some individual drawing up a statement. You have a clerk of the General Council. I should suppose he is very well informed of everything that takes place in the University. Why should he not prepare a statement to the General Council of what has happened during the immediately preceding year or half-year?—As regards giving information, he might be able to do it, but I don't think that the members of Council would attach the same importance to a statement drawn up for their information by their official, which they would to an authoritative statement issuing from one of the governing bodies of the University; because the object of the paper would be not merely to record facts, but to express opinions and make suggestions. It might not be right, however, to call the statement a report, if that implied any superiority in the position of the Council.

8388. But do you contemplate that this paper, whatever it may be called, should contain a justification of the proceedings of the Court or of the Senatus?—It need not take that form, but the statement might be accompanied with such explanations as the governing body should think right to give.

8389. Don't you think such a proposal would be rather distasteful both to the University Court and to the Senatus?—I have no means of judging. I should think that these bodies would be willing to concur in any project that would induce the members of Council to take an interest in the University, and to attend its meetings. Their view might depend on whether they agreed with me that such an annual statement would have the effect that I anticipate.

8390. *Mr. Campbell Swinton.*—Does your experience as a member of Council enable you to name an instance in which the want of such a report or paper as you point at has been felt?—I think that, sometimes, when communications have been made to the Council by the Court, it has been felt that there was an absence of information as to the reasons and motives of the Court. That want might be supplied if some member of the Court were deputed to attend the Council and make a verbal statement in support of its propositions. But I think that sometimes these are sent down in a categorical form, and left to be considered by the Council without explanation.

8391. *The Chairman.*—You are speaking now of answers to representations by the Council, are you?—Yes, and sometimes of resolutions of the Court sent to the Council for consideration.

8392. Have you anything further to suggest under this head as regards the functions of the General Council?—Nothing more under that head.—The next point I had noted is the creation of new professorships or lectureships.

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8393. Do you think any are required at present?—I think that the present rule, under which no new professorship can be constituted without an endowment, might be modified with advantage. It is a good rule when confined to chairs not connected with any professional course of study, where the main object is to offer a position which will be an inducement to some man of learning to devote himself to the cultivation of a particular science or study. But in the case of professional chairs, where a course of lectures on a new subject is desired, there are no very strong reasons for objecting to the creation of such a chair without an endowment, and, looking to the difficulty of obtaining endowments, the existence of the rule referred to may perhaps operate prejudicially.

8394. On what authority do you understand that rule to rest?—I don't know, but I understand there is a rule, or at least a uniform practice, against the constitution of unendowed chairs. Now I think that in the Faculty of Law, with which I am conversant as a member of the Bar and a writer on jurisprudence, it would be most desirable to institute one or two additional chairs or courses of lectures on special subjects. The law of Scotland is a very wide field—too wide for any one man to deal with successfully in detail. Without interfering with the functions of the Professor of Law, whose duty it is to give a general view of the whole subject, I think there is room for some division of labour. No doubt there are students who would be desirous of receiving a fuller course of instruction in selected branches of the subject, such, for example, as mercantile law or the law of property. It is more difficult to say whether lecturers could be obtained without some guarantee in the shape of an endowment; but my impression is that in Edinburgh competent men might be found who would be willing to give short courses of lectures on subjects which they had specially studied, if they had the rank and office of a professor offered, with the right to receive fees from their students. I think that the professional bodies in this city would give their support to the arrangement by inviting or requesting their entrants to attend one or more of the special courses of lectures as part of the qualifying course of instruction. I understand from some of my friends in the medical profession, that there is room for special chairs in that department also. I may say with regard to such chairs, as well as those connected with my own profession, that I don't contemplate that every student should be required to attend every special or supplementary course of lectures. Even if attendance were entirely optional, great benefit might be expected to result to the students from their having the opportunity of attending them, if, as I anticipate, advantage were taken of these opportunities.

8395. But if these lecturers on special departments of the law of Scotland were not to have any endowment, and not to be professors, what is to be their precise connection with the University?—I think they should have the status of professors.

8396. You would make them professors?—I would make them professors, but without endowment. I think the position of professor would be an inducement to the candidate to apply for the office. I think that if the position were merely that of a lecturer, and not that of a member of the governing body, it might be more difficult to induce the best man to come forward and to take the trouble of preparing courses of lectures which might not be very well attended.

8397. The benefit which he would derive from being a professor, apart from the mere name and prestige, would be that he would be a member of the *Senatus Academicus*?—I think the position would give

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him greater weight, and students would be more disposed to attend his lectures.

8398. But are you aware that the *Senatus Academicus* is already found in practice to be rather too numerous a body for the convenient exercise of its functions?—I should suppose it was too numerous for practical administration, and that committees are necessary to prepare the business for the whole *Senatus*.

8399. We have been advised by many witnesses in regard to special subjects in the department of Medicine, that it is not desirable to institute professorships of these particular subjects, but rather that distinguished specialists should be allowed, when they happen to exist within the University or in its neighbourhood, to deliver lectures upon their own particular subject. How does that affect your opinion in regard to specialists in law?—I can see an advantage in that arrangement, because, of course, you don't always have an eminent lawyer any more than an eminent physician or man of science in the city devoting his attention to one particular subject; and the arrangement which your lordship suggests would have this advantage, that where you had an eminent jurist in any one department who was willing to lecture, the University might avail itself of his services. I may mention that the Juridical Society of Edinburgh, some years ago, endeavoured to establish a system of short courses of lectures on special subjects in law, and, I think, continued it for two years; but ultimately the arrangement came to an end, because these lectures were not recognised by the professional bodies as qualifying courses of instruction.

8400. And were not required?—Attendance on these lectures was not required for any purpose, and the lecturers were not in connection with the University. But it is quite possible, and I think very likely, that even although the lecturers were not made members of the *Senatus Academicus*, but were recognised by the University and by the legal professional bodies, the object that I have in view would be answered.

8401. But you may have at one time a man who has devoted himself very much to the law of real property, and at another time you may have a distinguished man who has devoted much attention to consistorial law, but you will not have them both at the same time. Now, would it not be desirable rather to have a sort of system under which you could make available, just as they occur, eminent men of that kind who had devoted themselves to one particular special subject?—I think there is a great deal of force in the suggestion. There is another reason applicable to the legal profession that points in the same direction,—that you may have eminent counsel in two departments, but in one of the departments the individual might be so largely engaged in practice that he would be unable to find time for delivering lectures. That difficulty applies even more strongly to the Bar than to the medical profession, because the Bar have not the power to fix their own hours, being obliged to attend the Court all day.

8402. It is more difficult for a lawyer to combine teaching with practice?—Yes; and in the case of a man in large practice, impossible.

8403. Is there any particular new professorship, do you think, for which there is a call at present in the University of Edinburgh?—In the Law Faculty I think the most useful one would be one of Mercantile Law, which is a very special subject, and of great interest and importance.

8404. Have we not got a professor who teaches mercantile law as part of his course?—Yes; but if there were a separate chair for Mercantile Law, the Professor of Law would have more time, if he omitted that branch, to devote to other branches of his subject.

8405. You mean the Professor of Scots Law?—Yes.

8406. But I was not referring to the Professor of Scots Law, but to the Professor of Political Economy and Mercantile Law?—I had not adverted to Professor Hodgson's chair; but I understand that he is only expected to teach the principles of mercantile law in their general relations, and for the instruction of men who are not of the legal profession, rather as a branch of political economy, or as connected with it.

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8407. Do you think there is room for a Professor of Mercantile Law who shall confine himself to that subject alone?—I think there is, undoubtedly. Giving the subject the range that it has in the Commentaries of George Joseph Bell, for example, it would furnish matter sufficient to occupy a session of the usual length. But the course of lectures might be shorter if desired, and they might be given during the summer session.

8408. *Mr. Campbell Swinton.*—Do you not think that the law students have already as many classes to attend as they could be expected to undertake?—It is difficult to give an opinion; but I think that when I was a student I should have been very glad to attend two courses of lectures on the law of Scotland. As it was, I attended the same course of lectures in two successive years.

8409. I think there are two other classes, attendance on which is obligatory on members of the Bar since you were a student?—Yes; but I believe that many students still attend the chair of Scots Law or the chair of Conveyancing during two successive sessions, and they might prefer to attend separate courses of instruction if the chair were divided.

8410. *The Chairman.*—But, according to the present practice, does not a student who attends either conveyancing or Scots law in two separate sessions really get two separate courses if he manages it rightly? I mean that the subject of the course of Scots law this year is not the same as next year, and so on?—I am not aware how that is at present. In my time, the same course of lectures was given every year. That is more than twenty years ago. One object I have in view is to have the co-operation of different minds in the work of the Faculty of Law. The subject of municipal law is too great for one man, however able and conscientious he may be.

8411. *Dr. Muir.*—Is there any other department in which you consider new professorships to be a desideratum?—I would rather confine my suggestions to the Faculty of Law, in which I am interested. I have no doubt the Commission will have evidence in regard to the other departments of greater weight.

8412. You would not like to touch upon theology?—No.

8413. *The Chairman.*—Will you give us your views as to the mode of presenting and electing University officers?—Under that head there is one point that I would like to speak to, namely, the mode of making up the electoral roll of the University Council. Under the present system, no one is put upon the roll unless he gives in a claim, and he must pay a guinea for registration. The result of this system is, that only a limited number of graduates have claimed at the time of their admission; but since the membership of the Council has had the political franchise attached to it, the business of putting men on the roll has, in some of the Universities at least, come to be treated purely as a political matter, and it has been taken up by agents' committees with party objects. I think that is undesirable, not only as regards the interests of University business proper, but also as regards the exercise of the Parliamentary franchise. I should prefer that a self-acting register were established,—in short, that the registrar should put every graduate on the roll as he is admitted, and have a right to exact a suitable fee for his trouble. Pro-

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bably a fee of half the present amount would be sufficient if every one were put on the roll; and if it were paid along with the other graduation fees, I don't think any one would complain of it.

8414. You think if everybody was made to pay, sufficient funds would be raised by a half-guinea fee?—I don't know what the precise result would be, but I suggest that sum as a reasonable fee to cover the costs of registration.

8415. And you would make it compulsory on every graduate to pay that fee?—Yes.

8416. Whatever the amount may be?—Yes; and it would be a very small addition to the graduation fees. One result of the present system is, to add enormously to the expense of all contested elections, whether for University officers or for members of Parliament, because the roll is in a very unsatisfactory state.

8417. I am afraid that would not improve the condition of the roll in so far as the necessity of striking off men who are dead is concerned?—I don't think it would make much difference in that respect, because they would be alive when they were put on the roll.

8418. With this difference, that there would be more men on?—Yes.

8419. *Mr. Campbell Swinton.*—And the more men on, the more difficult it is to find out after the lapse of years who ought to be struck off by death?—Yes.

8420. *The Chairman.*—There are a good many men who graduate at the University, particularly in the Medical Faculty, who leave the University you may say the day after graduation, and are never more heard of. They go to the uttermost parts of the earth. Now it would be very difficult to get these men off the roll again if you once put them on?—But I should hardly think that the action of the member as to claiming or not claiming is determined by his views as to his future residence, and probably the proportion of non-residents on the roll would not be materially different.

8421. Don't you think, if the graduate is going to spend his life immediately in a colony or in a foreign country, that he would grudge very much paying a fee for registration?—He would, if the fee were of a considerable amount.

8422. There is a very considerable number, as I daresay you are aware, of our medical graduates who are in that position?—No doubt. But still, I think, even at the risk of putting a number of superfluous names upon the roll, it would be better to have the roll complete than to leave it to be fought over by contending political organizations, as it is at present.

8423. Then you are doing that at the expense of men who have no interest to get upon the roll at all?—They may come back from the colonies after having made their fortunes.

8424. *Mr. Campbell Swinton.*—And would not the expense thrown on the candidates be greatly increased by the necessary process of hunting out these unknown men on the occasion of an election?—If you increase the roll there would be a greater number of men to search for, no doubt.

8425. *The Chairman.*—But the men of whom I am speaking are not men who will come back, but men who are now going back to their native countries, to the colonies and to foreign countries, and who have come here only for the purpose of receiving their education and their degree. There is no chance of their coming back. Now I daresay you are aware that there is a very considerable number of medical graduates in that situation?—There are; and I am told that very often students, when they put their names on the roll, merely give their last address

in the University town, and it is often very difficult to trace them afterwards. Possibly it might obviate to some extent the difficulty if the graduates were required at the same time to give their prospective residences, so that they might be traced.

8426. A medical man's address, and especially a young medical man's, is apt to be very shifting, is it not?—No doubt it would merely be a clue for a certain time. It might easily be lost.

8427. But the object you have in view is to take registration if possible out of the hands of political agents?—Yes, that is my object.

8428. Have you anything to say as to the financial position of the Universities?—I had noted under that head the suggestion as to an annual financial statement, but I have anticipated what I proposed to say on that subject.

8429. Is there anything else that you have omitted?—No.

Adjourned.

SATURDAY, 9th December 1876—(Forty-Seventh Day).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman.*
THE LORD JUSTICE-GENERAL.
DR. JOHN MUIR.

Professor GRAINGER STEWART, examined.

8430. *The Chairman.*—You are Professor of the Practice of Physic in the University of Edinburgh?—I am.

8431. And you were, I believe, appointed during the present year?—Yes.

8432. You were previously a lecturer on the same subject in the extra-academical school, were you not?—Yes.

8433. How long did you hold that position?—I was for three years one of the lecturers on the Practice of Physic, and for seven years a lecturer on Clinical Medicine.

8434. We shall be glad to be favoured with your views as to the course of study and regulations for graduation in your own faculty.—The first thing that strikes me is the importance of not making radical changes, considering the great prosperity of the University at the present time. It would, however, be desirable to gain some more time for the practical subjects. This might be done by making some new arrangements with regard to examinations in the purely scientific branches, or by extending the course to five years.

8435. Do you think the students would be willing to give so long attendance as that?—I think it would be better to make improvements in the examination arrangements.

8436. In what direction would you suggest these arrangements?—I think it would be well if the students were allowed to present themselves for examination at any time they wished after they had attended the required amount of lectures.

8437. So as to be examined on any particular subject immediately after they had studied that subject?—After they had studied it to the

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extent required;—thus, in some classes after a single course, in others after two courses, and so on.

8438. At present, the practical evil is, that men, while studying one subject, are obliged to continue keeping themselves up to the mark for examination in what they had previously studied?—Quite so; and often keeping themselves up to the mark in less important things.

8439. It has been suggested to us by some witnesses that improvements might be made in the same direction by including some of the subjects now a part of the regular medical course in the preliminary course—making them subjects in the preliminary examination?—I would permit botany and natural history to be taken as preliminary subjects if men chose; but I would not compel them to be made preliminary subjects.

8440. But it would clear the way for the medical course, if men chose to take them as part of the preliminary subjects?—Certainly.

8441. *Dr. Muir.*—Would it not be better to make it compulsory on them to do so?—No; because many students come from the country and from abroad, and at once enter the medical classes. They have had no opportunity of attending lectures on botany or natural history, and if these subjects were made preliminary, they would almost be compelled to prolong their course of study. I would therefore leave it optional.

8442. *The Chairman.*—Are you satisfied with the present preliminary examination previous to entering on the actual study of medicine?—Being but so recently appointed, I have not sufficient knowledge to speak of that. In regard, however, to questions under the third head, by the arrangement I suggest students would, at all events, be entitled to pass botany and natural history in one summer session, and they might even be able to pass them as preliminary subjects. Then they would be free for the study of anatomy and of physiology. After two winter sessions of dissecting and the study of anatomy, they might present themselves for examination in that subject; and after one course of lectures on physiology, and one course of practical physiology, they might present themselves for that. Thus, at the end of the second year of study, they might get clear of the examinations in anatomy and physiology, and be prepared for going into the more advanced subjects. Then, I think, the examinations on general pathology and *materia medica* might be taken at the end of the third year; perhaps, also, the examinations in surgery; and at the end of the fourth year the student would be ready for the examinations in practice of physic, clinical medicine, clinical surgery, midwifery, and medical jurisprudence.

8443. Do you think that any new professorships or lectureships are required, especially in your faculty?—I think there ought to be a professorship of or lectureship on Insanity.

8444. Hitherto that has been included in your chair?—Yes; it is my duty to teach it at present, or arrange for its being taught.

8445. Your predecessor gave a special course on that subject during the summer, did he not?—Yes; he had devoted special attention to the subject, and had the merit of introducing the teaching of it in the University.

8446. From the extent of your subject, some such special course is required if it is to be taught at all by the occupant of your chair?—Certainly.

8447. Is it impossible that you can undertake it in the course of your ordinary teaching?—It cannot be done during the winter.

8448. Do you think a lectureship on that subject would be sufficient?—We have as yet no lectureships in the University; but I think that a

lectureship might be sufficient. On the whole, however, it seems to me that a professorship would be better.

8449. *Dr. Muir.*—Would the work be sufficient to occupy the time of a professor?—It certainly would not occupy his time fully. It would only be a summer course.

8450. *The Chairman.*—Would you make attendance on that chair obligatory?—I would.

8451. The fact being that young men immediately after taking a degree might be called upon to give important evidence?—Yes. A man after graduating has a power over the lieges of great importance; and in consideration of that power it is necessary that the medical graduates should be well instructed in this subject.

8452. Has not much more attention been paid to the subject of late years?—Yes. But I would not have the course too minute or prolonged. I would not have it taught every day even in the summer session of three months, for three lectures in the week ought to suffice to give the students adequate instruction in it.

8453. Is there any other subject of which you think a new professorship is required?—Ophthalmology is an important subject. It belongs to the chair of Surgery. In all German Universities, or almost all of them, such chairs exist. It has got to be a very special subject, for in most large towns there are practitioners who devote themselves exclusively to eye diseases. I think our University ought to afford opportunity for the study of that subject.

8454. Probably a lectureship would be sufficient?—A lectureship or professorship; a professorship might secure a better man.

8455. *Dr. Muir.*—In these two cases would you suggest any endowment?—If we could get an endowment so much the better; but I believe it would be possible to get thoroughly good men to occupy these positions without endowment.

8456. *The Chairman.*—There is just one difficulty suggested with regard to the creation of a great number of new professorships—especially if men were willing to take them without endowment—and that is, that the *Senatus Academicus* is already found rather large for an administrative body?—My experience does not enable me to contribute anything on that matter.

8457. We have had, to a certain extent, diverse and opposite opinions given as to the propriety of creating any special clinical chair or chairs; what is your view?—I think it would be a mistake to appoint a special Professor of Clinical Medicine.

8458. Do you think it is better done as at present—being divided among the professors generally?—On the whole, I think so.

8459. Can you give us your reasons for that?—At present our students derive their knowledge of the nature, diagnosis, and treatment of disease mainly from three professors—the Professor of the Practice of Physic, the Professor of Pathology, and the Professor of *Materia Medica*. It is of the utmost importance that the students should have an opportunity of seeing the practice of the professors whose lectures they have attended, so that they may see the practical application of the views they had been taught in the class-room.

8460. Would the same object not be attained by the clinical teaching being done by another man?—No, because no two men can put things in the same light; the students get a different view of the matter from their systematic teacher from that which is presented by their clinical teacher. They are not prepared to appreciate clinical facts exactly when put in a new light; whereas, if they follow the clinical teaching of the professor who

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has taught them systematically, they can without difficulty take up the exact aspects of disease and appreciate the lines of treatment which the teacher follows. And, besides, they know his reasons. I had considerable experience of this matter when I was in the extra-mural school. The students, as a rule, attended both my systematic lectures and my clinical teaching. They took notes in the systematic class, and when we came to meet with examples of diseases they studied those notes, and compared the descriptions given in the systematic course with what they were taught in the clinical course. In that way I saw how they learned under that system.

8461. Suppose the present practice is adhered to—having the clinical teaching done by the professors in the same way as at present—are there any changes in the arrangements which you would suggest?—I think the arrangements might be improved.

8462. It is left much to the discretion of the professors now?—Yes. I would have one or two changes made. After the time of the present incumbents has expired, I would make it obligatory on the Professors of the Practice of Physic, Pathology, Materia Medica, and Midwifery and the Diseases of Women, that they should also be clinical professors.

8463. *Dr. Muir.*—Is it not compulsory at present?—No. Sir Robert Christison is Professor of Materia Medica, and does not teach clinically; but we have compensation in the fact that Professor MacLagan takes part in the work.

8464. *The Chairman.*—Do the professors arrange among themselves in regard to the matter?—Any professor in the Medical Faculty may teach clinically. In regard to the arrangement of the course, I would always have two professors on duty. I would have the class divided between the two; and in the middle of the winter session would make them exchange, so that they would see the practice of different physicians at different times. And that leads me to speak of another advantage of the present system, namely, the very great importance of students seeing the practice of different men; for one physician's practice may excel in one department, and another's in another.

8465. Have you any other remarks to make under that head?—The arrangements that now exist in regard to a clinical tutor are very valuable. When I was an extra-mural lecturer, I introduced the plan of appointing a tutor whose duty it was to teach the members of my class the methods of examination of patients by percussion, auscultation, and so on. This plan was afterwards adopted in the University.

8466. Does a clinical tutor exist?—There is a clinical tutor, not in connection with my chair, but in connection with the course of clinical medicine.

8467. That is in connection with the extra-academic school?—No. When I say he is in connection with the course of clinical medicine, I mean that he is in connection with the clinical professors—a tutor acting under the clinical professors.

8468. Do you think it a valuable thing that such a tutorship should exist?—Yes.

8469. Is one sufficient?—I have no doubt that before long we may require two, or perhaps more.

8470. Is provision made for the remuneration of that tutor out of the University funds?—I believe he is partly paid by the fees which are charged for his course, partly by a grant out of the University fund.

8471. Then has he a separate course from the professor?—Yes.

8472. Is he appointed jointly by the professors?—Yes; and I presume the appointment is approved by the *Senatus Academicus* or the Court.

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It might be suggested that the work is too hard for a professor to teach his own subject proper and clinical medicine besides. I don't think it is. Even if there were a separate Professor of Clinical Medicine, it would be necessary that those professors whom I have named should have wards in order that they might exemplify and illustrate their teaching.

8473. In regard to one of the subjects named—midwifery—is there not some difficulty in finding sufficient opportunities for teaching that subject in the Infirmary at present?—We have in the Royal Infirmary good opportunities for teaching the diseases of women, but we must further get arrangements made for a connection with the Maternity Hospital, so that the professor may be able to illustrate his teaching of midwifery.

8474. What you suggest with regard to a clinical tutor meets the next question as to the provision of assistants and teaching apparatus, does it not?—It does, and along with it what I have already referred to in connection with the Maternity Hospital.

8475. Was not the Maternity Hospital at one time more immediately in connection with the University than it is now?—Yes; and it ought to be in connection with the University and the extra-mural lectureships on the subject.

8476. Have you formed any opinion on the subject of the length of University sessions?—So far, I have. It would evidently be advantageous if we could have two sessions of four months each.

8477. And have a summer session as long as the winter one?—Yes.

8478. Or rather the winter one as short as the summer session?—Yes, as the proposed summer session; and thereby certain courses, such as the practice of physic and surgery, which it is very difficult to get over in a five months' session, could be dealt with in two sessions, extending over eight months.

8479. That would be giving two sessions to these subjects?—Yes; then midwifery, which at present gets a winter session, could be reduced to a four months' session quite well. I mention midwifery as an example, but there are other courses which I think might be shortened.

8480. Would that arrangement you suggest suit the students as well?—I think on the whole it would—the session to begin in November, as at present, and terminate in the end of February; to resume in the beginning of April and end in the end of July. The month of March would be left for examination purposes.

8481. That would make the beginning of the present winter session the same as now?—Yes; and the end of the summer session the same as at present. The present summer session begins on the 1st of May.

8482. *Dr. Muir.*—The month of March being occupied by examinations, the student would have practically no rest from the beginning of November until the end of July. Would that not be too much of a strain?—It is a strain, but the month of March would not necessarily be occupied with examinations; it would not be so occupied every year.

8483. *The Chairman.*—Would the practical effect of that be, that students would get over the medical course in the same time as at present?—Yes; at the same time I do not wish very strongly to urge this, but there are certainly advantages connected with it. The change would enable professors to deal with the subjects in a more satisfactory way. There may, on the other hand, be difficulties I do not yet know of.

8484. Do you attach value to the recognition of extra-mural teaching?—I do.

8485. And generally of the mode in which it is brought into connection with the University system?—I do.

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8486. Do you think the extent to which it is recognised in the University course suitable?—I do.

8487. And do you approve of the rule by which individual teachers are recognised, and not schools?—I think it is the best plan.

8488. In some Universities the precisely opposite rule exists—with regard, for instance, to the degree in Science—schools being recognised and not individuals?—I did not know that.

8489. Finding that this system has worked so well in the Faculty of Medicine, would you think it advisable that it should be extended to other faculties?—Decidedly; certainly to the Faculty of Arts, and perhaps to all the faculties. I have seen the advantages derived from the extra-mural system, as existing in the Medical Faculty—that it trains men in the art of teaching, fits them for entering efficiently on the professorial work; that it enables the qualities of the teachers to be well known before they have the chance of entering the University; that it creates a wholesome rivalry to us who are in the University; and that in the event of any unfortunate appointment in the University, it saves the school from very serious injury. I would not, however, introduce it into the Faculty of Arts until an adequate endowment were provided for the chairs.

8490. You think that to do otherwise would be a hardship to the present incumbents?—Not only so, but it would make the chairs less attractive for future candidates, if we did not first secure a minimum endowment of say £500 a year.

8491. Do you see any difference between the two faculties in regard to the objects of their teaching that makes the advantage of extra-mural teaching evident in the one and more doubtful in the other?—No.

8492. It has been represented to us by some witnesses that the introduction of extra-mural teaching in the Faculty of Arts would lead to a system of cramming; that is to say, the intra and extra-mural teachers competing not so much for the amount of information they would give the students, as for their success in making them pass the examinations for a degree. Do you agree with that?—No. In the Medical Faculty we have not seen anything of the kind; and the same argument might have been *a priori* used in a question of extra-mural teaching in connection with the Medical chairs.

8493. Do you think there should be extra-mural teaching in the subjects comprised in the Theological Faculty?—I know so little about it, that I would not express an opinion in regard to it. In regard to the Arts Faculty, however, I think it would be a decided improvement.

8494. And if it is proposed to introduce it there, you would introduce it on similar rules and regulations as in the Medical Faculty?—I would.

8495. Will you now favour us with your remarks as to the existing rules as to the mode of presenting to University offices?—I think it might be an improvement if the curatorial Court were enlarged.

8496. To what extent?—Perhaps double the number, or fifteen.

8497. You think that would form a better electing body than the present limited number?—Yes.

8498. How would you select the additional members, or would you make any alteration?—The same mode and the same proportion.

8499. How many would you give the Town Council?—At least eight out of the fifteen, and the Court the remainder. I would object to the Senate being represented; I think such a suggestion is a mistake.

8500. Some witnesses have suggested that on the occasion of a vacancy, the Dean of the Faculty should be called into the curatorial body for that election; what do you say to that?—I think that would be a mis-

take. It is a very awkward thing to mix up those who are to be the colleagues of a man with the contest for his chair. If there are grave public reasons for preferring one candidate to another, the members of the *Senatus Academicus* have ample opportunity of expressing an opinion by testimonials; and preference founded on private considerations should not be represented in the curatorial Court.

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8501. *Dr. Muir*.—Do you think the members of the curatorial Court ought to be allowed to vote by letter, instead of attending the meetings when the election is to take place, and hearing all the *pros* and *cons*?—I can see that great injury might result from voting by letter. A curator might be at a distance recording his vote before the most eligible candidate came into the field.

8502. *The Chairman*.—Is not this view you have just expressed, as to the curators being present at the election, in some respects an objection to the notion that the curatorial Court should be enlarged? Would it not be difficult to secure an attendance of fifteen men, considering that they ought to be men of eminence as much as possible?—That is the chief objection, undoubtedly.

8503. Would it not throw the patronage among local people, or among those whose local residence gave them facility to attend?—I would suggest as a way of getting over that difficulty, that voting by letter be permitted, provided that a certain number of days be allowed to pass between the last day for receiving applications and the actual appointment.

8504. *Dr. Muir*.—Don't you think it desirable that the curators should meet and consult and talk over the qualifications of the relative candidates before they make an appointment?—I do.

8505. *The Chairman*.—Do you consider the curatorial Court or some such court preferable patrons to the University Court, which is the patron in some other Universities?—I do.

8506. What opinion have you formed as to the emoluments and retiring allowances of the various chairs?—As I have already indicated, I think the emoluments of the Arts professors ought, if possible, to be increased; and in all the faculties I think there should be allowances made for examinations—either by fee or by salary. Some of my colleagues tell me that since their appointment they have had an immense amount of work added to their labours—work in connection with the clinical examinations, for example, for which no fee is allowed.

8507. What would be the preferable way of increasing the emoluments—raising the fees?—Endowment would be better. There is a plan followed by the Colleges of Physicians and Surgeons in their examinations of giving a certain fee for every hour of attendance; but I think a salary would be more satisfactory.

8507*. In the same way, do you think an addition to the emoluments of the professors in the Faculty of Arts should be received as endowment, or should the fees be increased?—I do not know enough about the Faculty of Arts and the students in it to express an opinion about that. I don't know what might there tell as a radical change, and affect the prosperity of the University.

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8508. *The Chairman*.—You are Professor of Mathematics in the University of Glasgow?—I am.

8509. And were appointed in 1849?—Yes.

8510. Besides discharging your duties as professor, have you taken a

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general interest in the affairs of the University?—Yes. I have done so officially during almost all my incumbency. I was Clerk of the College, or of the Faculty, as it was called, from 1852 to 1859; and then, after the change was made, ever since the late Professor Ramsay's retirement in 1863, I have been Chairman of the Finance Committee of the General University Fund—not of the Removal and Building Committee.

8511. You are therefore intimately connected with the affairs of the University?—Yes.

8512. And with the working of the new constitution it received from the University Act?—Yes.

8513. Will you favour us with your views as to the constitution and powers of the University Court?—I think the constitution depends very much upon the powers. The first point seems to be, What are the duties? and the second, Who are the persons to perform them? On the first point, I hold that the duties should be almost entirely visitatorial. The first thing that occurs to me is, that there is a want in the University constitution under the Act of the power of making statutes that shall govern the procedure, for instance, of the Senate. There have been many occasions on which we have tried to make standing orders, but these were always felt to be futile, because the first thing the Senate would do would be to suspend the standing orders, if they stood in the way. There is no power of keeping the Senate to certain regulations. The thing which is wanted, in my opinion, is the power of making statutes; and I think these should be drafted by the Senate and confirmed by the University Court. The Senate would then have no power of repealing a statute, except by altering it and sending it to the University Court again.

8514. Would you allow such statutes to make important changes in the constitution, such as those for which the consent of the Queen in Council has to be obtained?—No; but to regulate the procedure in the Senate or the University Court, so that a small number might not violate some rule that was thought by the whole body to be a proper rule to observe. Something of the sort exists so far in the University of Glasgow. For twenty years before 1727, there had been considerable quarrels amongst the professors and with the Principal. There was first a Royal Visitation in, I think, 1715, the dispute being particularly about the election of a Rector. The Visitors settled the matter in one sense, under the influence, I suppose, of Principal Stirling, who, as far as I have learned, was a man of arbitrary character. After his death, there was a second Visitation, in 1727, which regulated the way of electing the Rector. It also made a number of statutes as to procedure, which are in force still. These are often appealed to, and are very useful, in my opinion. There is such a rule as this (it was the Faculty in those days who managed financial matters):—that the Faculty should not at once vote away a sum of money, but that a proposal of that sort should lie on the table for at least ten days. That was a very proper rule, and it is constantly acted upon. It ought to be extended in a way in which we have no power to extend it. It ought to be extended to the case of entering upon a course which must inevitably lead to expenditure. But that is not exactly in terms of the statutes of 1727; and so things may be suddenly done which it would be better to have deliberation upon. It is, therefore, desirable that the Senate should have a power such as I indicate, especially as the quorum of the Senate is only one-third of the whole Senate—a power which would prevent the regulations being violated.

8515. Would not the present constitution give such a regulation by

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the minority having an appeal?—Probably before the appeal could be heard the money would be spent, and the expensive course would be entered upon. The case of the omnibuses has already been mentioned to the Commission. In that case the thing was done in the vacation, and one of the rules of the Commission of 1727 was, that no burden should be put on the revenue in time of the vacancy. I think that is a proper rule. When the members of Senate are dispersed, a small number of them should not have the power of making away with money. In the case just mentioned, the thing having been done in the vacation, I appealed to the University Court, and they decided that the rule was still in force, and that I was right. But apart from all that, there are rules which it would be proper to have made, by which the Senate, when in full numbers, would have power to say that when there is a small attendance such and such things are not to be done.

8516. Then would you require the sanction of the University Court for such rules?—Yes, or something of that sort; but it would require an Act to arrange it.

8517. You have also spoken of similar rules made by the University Court for its own guidance. Would you require them to have the sanction of the Senatus?—Yes; sanction of the statutes should be given by both, so that the one could not repeal a rule without the sanction of the other. That addition should be made to the powers of the University Court.

8518. Has the University Court not fully that power at present—power to review the decisions of the Senatus?—Yes; but these reviews will come too late, and they will lay down no rule to bind the Senate for the future.

8519. Is your interpretation of that clause of the Act giving them power to review all decisions of the Senatus, that it gives them power to act *ex proprio motu*, or only on application of the minority?—I hardly know what the interpretation is, but the proper thing is that they should only act on appeal. I would not give the Court any power to act *proprio motu*. In regard to their other powers, I think their power of effecting the retirement of professors was the main purpose for which the University Court was created, and I think that is a power they are too timid in exercising.

8520. You would desire them to be inspired with greater courage, would you?—I think it should be made to appear distinctly in the new Act that a duty was thrown upon them of seeing that the staff was efficient. I do not think that they exactly feel their responsibility. With regard to the appointment to certain chairs, that, I suppose, will be left with the University Court; it is inevitable that it should be, in the present state of matters.

8521. But, as a question of theory, do you prefer the University Court as a patron to the Crown?—I don't know; I see great advantages on both sides of the question, and I would hesitate very much in giving a decided opinion. If the Court is to appoint to certain chairs, I think there should be experts in the Court who know the wants of the faculty to which the appointments are to be made; there should be more of the academic element in the Court. In the case of the Faculty of Arts, for instance, the University Court at this moment, and for the greater part of its existence, has had no representative of the Faculty of Arts, and has had no special knowledge of the qualifications required for a Professor of Greek or Latin whom they may have to appoint; and I think, that if they are to retain the power, which, I suppose, is inevitable, there should be members in the Court who have special

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knowledge of the subjects in the Arts Faculty—who are likely to be good professors, and so on—or the Court should ask for a report from the Faculty of Arts.

8522. Appointed, do you mean, to judge of the comparative merits of the different candidates?—Or something of that sort.

8523. Would there not be an awkwardness in asking the Faculty of Arts to discharge such a duty in connection with a future colleague?—There may be a difficulty there; but at present I rather think the University Court has too little special knowledge.

8524. And you think a body of patrons are better to be possessed of special knowledge themselves, than to conscientiously exercise their common sense in getting knowledge from those who have the special knowledge?—Yes. I mean to say that there should be an element of special knowledge in a body which has to exercise such patronage.

8525. You think it better that they should occupy the position of judges than of jurymen?—Yes.

8526. What you have said in regard to the want of actual representation in the University Court of the Faculty of Arts applies as strongly, if not more so, to the Faculty of Medicine, does it not?—There is a Professor of the Faculty of Medicine in the University Court. The Senate has one representative in the Court, but he can only be of one faculty. Besides, the Court has very little patronage to exercise in the Medical Faculty.

8527. Is not special knowledge more necessary in the choice of a Professor of Medicine than in the selection of a Professor of Greek or Latin?—No; I hardly think so.

8528. Holding that view in regard to the functions which the Court is to discharge, both as a court of review and a body of patrons, what constitution would you suggest for it?—The University Court has sometimes not acted in a way that I approve of. In the appointment of a professor, for instance, they have taken a pledge from the professor to act in a particular way—exacted a pledge before appointment that he would act in a particular way.

8529. Do you mean, in conducting his chair?—I know that in two cases they exacted a pledge that he would teach in summer. That is a thing which I don't think they should have done; and I have to say, that if that had been put to me when I was appointed, I should have said 'No,' and where would they have been? They would have been in an absurd position. If it is right to teach in summer, the regulation to do so should be made by legislation, and not by indirect means. If the Court have any views, they should not carry them out in appointing professors; but they have twice done it. There is another case, which should be mentioned along with this. The University Court has power to fix the fees. Last session there was a proposal from the Senate that the fees of all the classes should be raised. The University Courts of Glasgow and Edinburgh, in making a response, said: 'We will raise the fees, but at the time we fix the fees, as you propose, we shall insist on an entrance examination in certain three classes.' Now, the effect of this is again that they are making a bargain when their duty under the Act is to fix the fees. Whether there should be entrance examinations or not is a University affair; and to combine that and the fixing of the fees was something of the same nature as the previous things I objected to. They returned the matter to the Senate, coupled with a measure which will affect three particular classes; and the presumption being that the members of the Senate were anxious

to have their fees raised, the Court practically said, 'If you will vote with us, your fees will be raised.'

8530. In your view there is a natural connection between the question of raising the fees and the question of entrance examinations, the connection being that the loss the professors might sustain from the introduction of entrance examinations would be compensated for by the increase of the fees?—That raises another question, whether the raising the fees will increase the emoluments, which I very much doubt. But besides that, there are twenty-three or twenty-four other members of Senate, the raising of whose fees was made dependent on their taking a particular view, which did not affect them pecuniarily. As I pointed out when I saw it first, the object might have been accomplished in a different way, by saying, 'Now, when we have raised your fees, there is to be no claim for pecuniary compensation on the introduction of entrance examinations.' That might have been right, but the other mode was, wittingly or unwittingly, the giving a bonus to twenty-four out of twenty-seven jurymen, if they took one particular view. It was wrong to couple these two things together. At present we have not the power of making such statutes as I have indicated; and it is a question whether the Court is properly constituted when they will do such things.

8531. How would you amend its constitution?—My impression is that, in regard to the entrance examinations, it was not a matter which the Court could initiate. They put it on the ground that it was an improvement in internal arrangements. They were told by the Act to do it after due communication with the Senate; but they never said a word to the Senate, but sent down word the last day of the session, when we were all dispersing, that there was to be an entrance examination.

8532. Was that not a direct violation of the Act of Parliament, attempting to do anything without due communication?—Then would you like us to have gone to the Court of Session? If the Court were a properly constituted body, they would not do anything of the sort. I would have their powers laid down in the new Act, and restrict them to these. I think the present provisions about their powers are extremely vague.

8533. Avoidance of what you complain of would be obtained by what?—By stating very precisely what the powers of the Court are; and I think the Court might be improved in constitution. My impression is, that the Deans of the Faculties should be members of the Courts—the Principal and four Deans; or, if there was a Faculty of Science, five Deans. The Deans of the Faculties would be appointed as the men who understood best the working of their faculties, having to conduct a certain amount of business in them. That was something like the old constitutional arrangement in Glasgow.

8534. There was of old an official—a Dean of Faculty—who is now called the Dean of Faculties?—Yes; because there was no Faculty but the Faculty of Arts originally—at least since the Reformation; and the Dean of the Faculty of Arts was appointed a visitor to the Old College by James VI., and when there began to be other faculties, they called him the Dean of Faculties.

8535. In what manner was the old constitution regulated?—The Rector had four assessors appointed, and the Dean of the Faculty of Arts had four assessors also. They were like Lords of the Articles in the Scotch Parliament. Both the General Council of the University, and the Faculty of Arts of the University, had meetings, in which Bills,

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previously prepared by the Dean and his four assessors, or the Rector and his four assessors, were brought in and confirmed.

8536. What other members would you have besides those five?—I would put it as a suggestion that the convener of the finance committee would be a proper person.

8537. That would be seven or eight representatives of the *Senatus* in the Court?—Well, they would not precisely be representatives of the *Senatus*. They would be members of the Senate, and they would represent the four faculties; and the convener of the finance committee would bring into the Court a knowledge of the pecuniary affairs of the University, which the Court should have a knowledge of.

8538. In what respect would you balance them with the outside world or the outside authorities?—I would let the outside world settle that point. If the representatives I have mentioned were members of the Court, there would be more knowledge of University affairs in the Court.

8539. There would be six or seven members of the Senate, members of the Court. Now what representation would you give the General Council to balance that?—I have not considered that question.

8540. *Dr. Muir*.—Would not the carrying out of your suggestion be giving the *Senatus* too great an influence and weight in the University Court?—If it is thought so, there might be arrangements made for putting in additional members of the Council.

8541. *The Chairman*.—Have you considered how many members the Court should consist of?—No.

8542. Is not that an important matter, if the Court is to act as a court of review of the decisions of the *Senatus*? Would it not be awkward that it should consist to a great degree of members of the *Senatus*, who have decided the questions to be brought up for review?—Yes; that is a point to be considered, if the Court was only a court of review. What I say is, that, with its other functions, the arrangements are faulty in this respect, that there are not sufficient representatives of the different departments, and not a sufficient number of experts in the University Court. I should propose, if I were drawing up a new Act, that there should be more experts in it. I do not say that there should be a majority of them, but there ought to be some, to give the Court the knowledge which is desiderated.

8543. Suppose you have five or six members of the *Senatus* in the Court, would it not be necessary to have representatives from some other quarter?—Yes, five or six others;—the Chancellor, Rector, Rector's assessor, and so on.

8544. Do you think that twelve would be too numerous a body?—No.

8545. Perhaps you think the number too limited? We have heard many opposite views on this subject.—No; I have not any decided opinion on the subject.

8546. Looking at all its functions, as an administrative and elective body, you do not think it would form too numerous a body?—No.

8547. Have you formed any opinion as to the functions of the General Council?—I think their functions are very well arranged at present under the Act.

8548. Do you think they ought to have increased representation in the Court?—If it is necessary to balance the Court, then I think so.

8549. You don't think there is anything in the claim they have prominently put forward, that in any circumstances they ought to have increased representation?—No, I do not see it. Perhaps if they have

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to appoint several representatives, the constituency might be made a three-cornered one. There would be some advantages in it. It is alleged that the General Council complain that they have nothing to do. I think that is a proof of the excellence of the working of the arrangements in regard to them. When they have something to do, I think it will show that there is something wrong. The moment there is a grievance there will be plenty for them to do.

8550. Are you decidedly of opinion that they are a most unsuitable body to exercise any administrative functions?—Certainly.

8551. The meetings of the General Council are not very well attended, I believe?—No; and that, I think, is one of the proofs that the whole University is going on in a smooth way.

8552. Is it possible that the meetings can ever be large in proportion to the members of whom the Council consists, considering how they are scattered?—No, of course not. Then, in regard to the point they make about power to adjourn, I don't think the Council ought to have the power of adjournment to another day. I think the two meetings in the year are quite sufficient.

8553. Do you not think they should have power to call a special meeting?—No.

8554. Have you any suggestions to make in regard to the course of study and the regulations for graduation in the faculties?—I don't see any necessity for legislating on that subject. The Ordinances for regulating the degrees have been altered from time to time, and can be altered by the University, with the consent of the Queen in Council. If there was anything requiring alteration there would be proposals for altering the Ordinances; and the only difficulty I feel is, that I think there should be a recognition of the old system, that the course in Arts should be the foundation in every degree—that degrees in a higher faculty should not be given without some academic instruction in general education, which is what is called the course in Arts.

8555. Holding these views, you do not approve of the idea which has been suggested, that greater option should be given to the student in choosing the subjects for which a degree can be taken?—If there was any necessity or strong desire for it, that could be done by alteration in the Ordinances. I think that is a matter hardly requiring legislation.

8556. Does it not require legislation in this view, that it would not do for one University to adopt changes which were not adopted by the others?—I apprehend the Privy Council would not allow an alteration which did not affect all the Universities similarly. The Ordinance regarding the degree in Arts is general.

8557. Have we any security that the Privy Council will act only on the wishes of the Universities generally, and not be influenced by one University?—What I mean is, that the result would be uniform to the four Universities.

8558. *Dr. Muir.*—A great many representations have been made on this matter. Have you any objection to state what alterations you think might be made in the regulations or course for graduation in Arts?—No; I do not feel that there is any need for an alteration in the course for graduation. A degree in Science has been proposed, and I think that might be instituted; but I do not see any necessity for altering the degree in Arts so as to make it partially a degree in Science.

8559. *The Chairman.*—What course would you recommend for the degree in Science as distinguished from Arts?—The arrangement come

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to in the University of Glasgow, as set forth in the University Calendar, is, I think, a reasonable one.

8560. *Dr. Muir.*—You would confine the Master of Arts to the present departments?—Yes; the degree is what it means. If you mean something else, give it a different name. Some people talk of the course of study being too long for a degree in Arts. At present the course can be accomplished in two and a half years, and I think that is short enough.

8561. *The Chairman.*—Is not that only by those who pass the preliminary examinations?—Yes; those who don't pass those examinations can go through the course in three and a half years, and I think that is short enough for them.

8562. If they pass the preliminary examination, they go at once to the higher classes, do they not?—Yes; but they can take the degree in three sessions even if they do not pass the preliminary examination in mathematics. In Latin and Greek they must pass the preliminary examinations before they can do so. I don't think you can get proper academic tone into a man in a shorter time than the present arrangements stipulate.

8563. You have some views, have you not, as to greater attention being paid to whether the student gives *bonâ fide* attendance or not?—Yes; this very session an Inspector of Schools told me that his assistant was coming to my class, but that he would not attend very regularly,—that is to say, there would be occasional absences; and he asked if I would take it as an excuse that he was employed on Inspector of Schools' business. He said that sometimes (not that he approved of it) students were admitted and enrolled, and their ticket signed at the end of the session, without regular attendance. Now I think the ticket should bear that the student has attended the class. I call the roll every day and mark absences and attendances, and every one of my tickets is of this sort,—that so-and-so was enrolled on such-and-such a day; that he attended with so much regularity up to such-and-such a date, and so on, 'so as to make up the five months' attendance required by the University.' In the case of every student who has not so attended, I score it out, and show that he has not completed his attendance. Attendance for five months is the rule in Glasgow, but I think I initiated the custom of putting the certificate on my ticket. If there was such a form in Glasgow and elsewhere, the abuse I refer to would not exist.

8564. You think attendance on a class should not qualify for a degree unless it has really been *bonâ fide*?—Quite so; and certified as *bonâ fide* by the professor.

8565. Have you formed any opinion as to whether a Faculty of Science should be instituted?—I think it is required. I don't know that I am personally fond of it, but I think it is necessary.

8566. What departments would it embrace?—All the natural sciences in a proper curriculum. My own view is that you cannot give a degree in Science to a man who does not know any mathematics; but the arrangements in the Calendar do allow a degree of Science without attendance on mathematics. It was a compromise we came to after a great deal of discussion, and, on the whole, I think the compromise, as adopted in the University Calendar, is a fair one.

8567. *Dr. Muir.*—Would not some of the subjects come from the department of Medicine?—Such as chemistry, zoology, and botany. There are several branches for the degree of Bachelor in Science in Glasgow. The courses of study are—

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In *Biological Science*, any four of these :

Chemistry.
Anatomy.
Physiology.
Zoology—including Comparative Anatomy.
Botany, and
Any four classes of the Arts curriculum.¹

Or in *Geological Science* :

Geology.
Chemistry.
Zoology—including Comparative Anatomy.
Natural Philosophy, and
Any four classes in the Arts curriculum.

Or in *Engineering Science* :

Mathematics (1 or 2).
Natural Philosophy (1 or 2).
Inorganic Chemistry (1).
Geology (1).
Civil Engineering (2), and
Any two classes in the Arts curriculum.

8568. *The Chairman*.—Do you know if any other degree is required?—I don't think so; I don't approve of the revival of the Bachelor of Arts degree. It would come to this, that no one in Britain would know the difference between the Bachelor and Master. In England, Bachelor of Arts means Master of Arts,—it is the only degree given by examination; and to call a man Bachelor of Arts in Scotland would be to make people assume that he had passed for the sole degree in Arts.

8569. Would you not be apprehensive that if he gained a Bachelor of Arts for a limited attendance on classes, it would prevent men from going on to the higher degree?—Yes; it would not be worth while going on to take the degree of Master of Arts. Then, if there is a degree in Science, I think every purpose of a Bachelor of Arts degree is served. Nobody would mistake Bachelor of Science for Master of Arts, and it does not exclude Master of Arts. I have known a number of instances in Glasgow of men, after gaining the Master of Arts degree, taking the Bachelor of Science degree besides.

8570. So the qualifications for M.A. are scarcely so high?—The attainments are different. Geology and chemistry are in the Science Department, but they are not in the Arts curriculum. Then, I think that if there was to be a degree in Science, there should be a Faculty of Science to superintend it.

8571. Would you take certain professors from the Arts Faculty?—No.

8572. Would you make some of them members of both faculties?—I suppose that would be so. No doubt there is a difficulty about that, and I quite see it.

8573. What special advantage is there in having a special Faculty of Science?—I think you want an organization to conduct the examinations. I don't know that it is very important, but it seems to me that it is the proper form.

8574. Have you formed any decided opinion as to the institution of

¹ That is, attendance for one session on any four of the following seven classes, namely, Latin, Greek, Logic, Moral Philosophy, English Literature, Mathematics, and Natural Philosophy.

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entrance examinations?—Yes. I am decidedly against any form of entrance examinations I have heard proposed yet, or can imagine.

8575. Do you approve of the present entrance examination?—Yes.

8576. By which a man can go into the second class without going through the first?—Yes; I think that was a proper solution of the difficulty of entrance examinations; and I think the present system has worked well on the whole, although there are some slight objections to it.

8577. Would you subject the students generally to the entrance examination which now takes place before a student can enter the second classes without going through the first?—No; I think it is quite unnecessary. The students know far better than any man who examines them whether they are fit for the senior class. They don't as a rule go to classes they are not prepared to attend.

8578. Not even those from the country?—The tendency is to go into the lowest possible class they can find.

8579. Is that because the work is easier?—It may be that, or from diffidence; sometimes, no doubt, because it is easier. For instance, men who are pretty well prepared in mathematics, but who mean to make classics their principal study, would rather go into the mildest class, because the work is easier.

8580. Do these men go on to take a degree?—Yes. That state of matters cannot be helped. The students trust to being able to work up their examination; and, indeed, they are so far up in the subject that there is no difficulty in passing the examination. I do not see how I can force the men out of a too low class into a higher one.

8581. How does the system of taking honours work with you?—Fairly, in the mathematical department.

8582. But in Arts generally, is there a fair proportion who take honours?—Yes, as many as you could expect. I think, speaking very generally, every one who is at all fit for taking honours does so.

8583. Is your opinion against entrance examinations founded to any degree or entirely on the present state of secondary education in the country?—Very much so. I think it is impossible to have entrance examinations when there are no means of students in the country being brought up to the proper level. The country schools have gone down since 1858. They have restricted themselves to the three R's, and don't teach Latin, Greek, and mathematics to the same high standard; and it is, therefore, far more difficult to have an entrance examination now than it was then.

8584. Then you do not coincide with the opinion that in the district from which students come there are plenty of opportunities for secondary education?—No. When the question was being discussed in Glasgow, I took a good deal of trouble to put down my views on the subject. I was Dean of the Faculty of Arts, and when we met to consider the question, they asked me to draw up a report. I drew up a paper which the Faculty of Arts asked to be printed. The paper was considered to deal pretty fully with the subject; and, if my opinion were asked upon it, I should simply read my paper.

8585-6. *The Lord Justice-General*.—Does it deal with entrance examinations only?—Yes.

8587. You had better put it in evidence.—The paper is as follows:—
'Entrance examinations are of several kinds.

'I. *Exclusive*—Failure at which would exclude (1) from matriculation and from instruction in any University class; (2) from instruction in certain specified classes. It is not known if an examination of this sort

exists in any University. As the University of London does not teach, its matriculation examination does not exclude from any instruction.

'II. *Preliminary*—For the purpose of permitting qualified entrants to count their previous education as part of the course for the degree, and equivalent to attendance on one or more University classes. The preliminary examination instituted by Ordinance No. 14 is an entrance examination of this sort applied to the junior classes of Latin, Greek, and mathematics.

'III. *Initial*—To be passed by entrants purposing to attend any class as "public" students,—that is, with a view not merely of receiving instruction, but of accomplishing part of the course of study for the degree, or for a bursary,—but not compulsory on "private" or "amateur" students attending merely for instruction. The entrance examinations described by the Professors of Marischal College as having existed there from 1827 to 1860, were examinations of this kind applied to all the classes of the curriculum, and such were also the Glasgow "Blackstone" examinations, affecting the Greek, logic, ethics, and physics classes.¹ Such, too, was that described by Professor Blackie as applied on his recommendation to the Edinburgh Greek class by the Town Council. All these were practically abolished by the University Commission, by Ordinance No. 14, which prescribes the attendance on classes and the examinations *necessary and sufficient* for the degree in Arts, but does not prescribe any entrance examination to the junior classes, though it permits (sec. ii.) an entrance examination to the senior classes.

'I. With respect to exclusive entrance examinations, it is to be remembered that the Royal Commissioners' report of 1830 does not recommend, and the Commissioners under the Act of 1858 (who had special powers to submit to Parliament rules for "the manner and conditions in and under which students shall be admitted to the Universities") took no steps towards any such exclusive examination.

'In the evidence given to these last, it will be seen that the balance of authority, and still more of argument, is much against exclusion, and even against any sort of entrance examination. Not only do the adverse opinions constitute a large majority, including nearly every name of much weight, but of the others, who do not explicitly limit their approval of entrance examinations to the case of candidates for the degree, most leave it doubtful if their approval is not to be so limited.*

'It is especially worthy of note that all the associations of graduates (of St. Andrews, Glasgow, and Edinburgh) are careful to limit their approval of entrance examinations to such as are not "exclusive."

'It is also to be remembered that the entrance examination instituted by Ordinance No. 14 might seem quite sufficient to such as then advocated an entrance examination; and the Universities Commissioners certainly thought it so.

'It might be well to examine the arguments used on either side. These may be classed as "internal," relating to the effect on education within the University, and "external," bearing on the schools.

'INTERNAL ARGUMENTS.—A. The less advanced students of a class are a "drag" on the better prepared, and retard their pro-

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¹ 'There was also a rule in Glasgow that no student should enter the Physics class as a public student till he had attended the Mathematic class or passed an examination in mathematics. The present Professor of Mathematics, twenty-six years ago, declined on principle to conduct this examination, and the rule has become obsolete.'

² 'Some opinions are difficult to interpret; for instance, that "no person ought to be admissible who cannot write good Latin prose, and," *inter alia*, "translate and analyse a play of Sophocles."'

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gress. This may have been the case when all the learners of a certain subject were taught simultaneously in a single class. Then the "unevenness" (or disparity between the extremes) may be so great that the instruction of the lower may be useless to the upper part of the class, or, as is more likely, the instruction of the more advanced be unintelligible to the less forward. But the "unevenness" may be reduced to a minimum by distributing the students, as is now done in some classes, into several fairly homogeneous divisions separately taught.

'This distribution into divisions is a much more discriminating remedy for excessive unevenness than the measure of excluding from instruction those who most require it. It is also more effective, for each of two (or three) divisions will be both smaller and more homogeneous than the residue after exclusion of less than half (or two-thirds). As facilitating this distribution into divisions, the institution of assistants "goes far to solve the difficulty arising from the alleged want of an entrance examination."¹

'It is also to be remarked that some "unevenness" is not only unavoidable, but in moderation is probably one of the reasons why class teaching has frequently a better result than private tuition. The quicker students gain thoroughness by being taught along with those a little less advanced, the "drag" makes their progress sure rather than slow, while its reaction stimulates the laggards.

'B. "If the professors were thus" (by a matriculation examination) "enabled to avoid work which should properly devolve on the schoolmaster, and which at present occupies much of their time, a corresponding amount of additional time would obviously be gained for proper college studies."

'If there ever was ground for the allegation here seemingly implied, that the professor failed, for the cause assigned, to supply any demand for instruction in the more advanced parts of their subjects, this difficulty, too, has been solved by the institution of assistants. The distinction to be drawn between the "proper work of the schoolmaster" and "proper college studies" (in the absence of a co-ordinated system of national education) is entirely a question of practice, or of demand and supply. There is no natural propriety in the University teaching Hebrew grammar, the elementary properties of matter and force, and "avoiding" the intricacies of Greek grammar, the theory of parallels, or the properties of number. What work the student can efficiently learn at his school the professors do now practically avoid, but they cannot teach their subjects properly if they leave a gap between their teaching and what can, as a matter of fact, be learned at the schools.

'It is thus as inexpedient as it is impracticable to draw a hard and fast line to prevent the professor teaching the very foundations of his subject.

'It must inevitably be left to his tact and experience to omit what may be safely omitted without neglecting essential elementary points which he finds have been imperfectly apprehended or misapprehended at school. And this revisal and organization of elementary principles, previously half-learned by rote, is far from waste of time either to student or professor. It is on the security of these foundations that the whole superstructure depends. The late Dr. Robertson, of Edinburgh, expressed such an opinion. [See also Professor Sellar's *Address*, pp. 27, 28.]

¹ 'The late Principal Forbes.'

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'It is also to be observed that it is on the Universities the schoolmaster depends for instruction in improved methods of teaching the elements of classics and mathematics.¹ If the Universities are to cease to teach these subjects, where are the future schoolmasters to be trained to teach them in the best way? For this purpose the retention of the so-called "elementary" teaching of the junior classes is a substitute for a chair of Pædeutics.

'So far from thinking the professor's time wasted in teaching the insufficiently instructed, some members of Council (representing a considerable party outside of the University), at a recent meeting of Council, urged the establishment of evening classes for the uneducated masses in the city.

'C. On the other hand, the argument is still good, that the effect of an entrance examination, not uniform in all the Universities, would be that many students, very probably some of the best, would go to that University where they ran no risk, or least risk, of being stopped *in limine*; and that if there were an uniform examination in all, many excellent classes of students, rather than run the risk of failure, would abandon all hopes of University education, to the detriment of themselves as well as of the Universities.'

'D. This argument, that the Universities would lose many students who in the end do them great credit (and receive great benefit from their attendance), by excluding persons of "luckless or immature talent," who from "want of opportunity" have made little progress in the higher learning, or are at least unprepared to stand a strict examination, has increased since 1860. The difficulty, even then insisted on, of rural students obtaining efficient instruction within reach of home has become now much more serious in even not remote districts. For instance, it is stated by a Glasgow graduate and schoolmaster, that in his native parish, eighteen miles from Glasgow, there were, some twenty years ago, two schools, at both of which good instruction in classics and mathematics was given, but that now, with nearly a dozen schools, such is no longer the case. There seems no ground for the supposition that this is in any degree due to the existence of elementary teaching in the Universities, which is no new thing.'

'Quite adequate causes are to be found in the course of legislation, the action of the Education Department, and the Department of Science and Art. These have made it less common (because less worth the cost) for schoolmasters to have the requisite knowledge of classics and mathematics, have tended to restrict them to the really elementary subjects, and have made it a more profitable employment of the schoolmaster's spare time to teach, as extras, branches which are both easier and better paid. For instance, the Government grant is the same for each of the following three subjects:—

"(7.) General notions of the mechanical powers; "

"(10.) Rudimentary explanation of the camera obscura, burning glass, magnifying glass, microscope, and telescope. Illustration of the difference of specific heat of bodies. The causes of cloud, rain, and dew; "

¹ 'A number of teachers are at this time attending the junior classes with this express object.'

² 'It is alleged that the effect of a very moderate entrance examination tried some years ago at St. Andrews was to diminish the number of students by one-half.'

³ 'The only respect in which the so-called competition of the University with the school may affect the latter more than it did sixty years ago, is that the cost of University education has remained nearly stationary for that period, and is therefore now *relatively* much less.'

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"(11.) Construction of electrophorus, electrical machine, and Leyden jar, construction of a common battery, explanation of a thunderstorm, action of a current on a magnet ;"

'As for

"(4.) The Greek grammar, Xenophon, *Anabasis*, book i. Somewhat longer sentences to be translated from English into Greek."

'This may be right, but its effect on the facilities for learning Greek in rural districts is obvious.

'E. Another argument for entrance examinations in classics is derived from the alleged want of exact scholarship in Divinity students. This is said by one Divinity professor to arise from their want of elementary instruction. If so, it is, to say the least, a very indirect remedy for the University to refuse to give that instruction. But it would seem rather to arise from the very loose way in which "tickets" of mere attendance on classes are taken by presbyteries, etc. as evidence of proficiency in the subject of lectures. Whatever the cause, the natural remedy appears to be to insist on Divinity students taking the degree of M.A. before commencing their professional studies, or passing a more searching "entrance examination" to the Divinity Hall.

'In connection with this, it is to be observed that a recent regulation of the Church, making the study of Hebrew preliminary to the Divinity Hall, has aggravated the mischief by interfering materially with the higher Arts studies of intending Divinity students.

'F. The advocates of entrance examinations assume that an examination can be, or is likely to be, so conducted as to select those who will profit by University education, and reject those who will not. But the feasibility of this appears very doubtful to those who have practical experience of examinations, or who have compared the subsequent careers of the more and less successful in even closing examinations of those who have been taught together for years. If the test is very much of a failure among those who have had equal opportunities, what is to be expected from an examination of a mixed multitude of miscellaneous taught candidates for entrance? Professor Sellar in his recent *Address* (p. 24) points out that sharp boys of fifteen trained at the Edinburgh Academy or High School, whom it would be desirable to exclude for another year, would easily pass—while young men from rural districts over eighteen (constituting 50 per cent. of those who enter the junior classes), whom it would be absurd to send to school, would be rejected;—and yet the latter often turn out better than the former. This shows, by the way, that an entrance examination might have the unexpected effect of diminishing the average age¹ of students in the Faculty of Arts, and increasing the proportion of the schoolboy element—consequently of making the Arts classes more, instead of less, like the upper classes of a school, and of draining the upper classes of schools, which would probably be deserted so soon as the boys could pass the "entrance examination" at college, which would be regarded as an authoritative declaration of fitness for the University.²

'ARGUMENTS FROM EXTERNAL EFFECTS.—A. But it has been alleged that the effect of an entrance examination (especially of an "exclu-

¹ 'In two ways, by diminishing the number of elder and increasing the number of younger students.

² 'Compare Herbert Spencer (*Sociology*, 2d ed. p. 97), on the "amazing folly of the examiners who propose to test the fitness of youths for commencing their higher education" at Calcutta University by their kind of questions. But the examiner might reply that, with any other sort of questions, the examination would be either a "sham," or play into the hands of the crammer of "surface knowledge."

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sive" matriculation examination) would be to cause a demand sufficient to create a supply of classical and mathematical teaching at all country schools. But if it be true, as is equally alleged, that the effect would be to deter many from the attempt to obtain University instruction, the demand might not improbably be diminished, and also the number of schoolmasters receiving University education, and so competent to teach.

'B. Then it is said that intending students would be sent from home to attend some upper school to prepare for the University. This seems very visionary. The vast mass of country students (and it should never be forgotten that it is these, and not the town students or middle classes, who have created, or at least hitherto in great measure supported, the Scottish Universities) could not possibly afford both a secondary school course of many years and also a University education; and the number gained by the burgh schools (in whose interest this suggestion is made) would be as nothing to the number the University would lose, and that would lose the University.

'C. Again, it is said that if the Universities did not supply instruction in the elements of higher education, additional upper schools would arise over the country, within the reach of all. This implies that the Universities are to reject so many candidates for admission, that the portion of those who did not altogether abandon the hope of higher education would make the establishment of a large number of such schools commercially profitable.

'This is absurd. Even in the richest and most populous centres an unendowed upper school is hardly ever a financial success, and the whole revenue from fees of the Faculty of Arts in the four Universities would not support four upper schools. But suppose it possible for the Universities by any policy of exclusion to effect something in this direction, it must, to say the least, be considered doubtful if it be competent for them to change their long established system for such an extraneous result. It is the province of the nation (with which lies both the power and the responsibility) to establish, if they think fit, an organized system of secondary schools; and it is not the part of the Universities to make a probably futile attempt to starve the nation into establishing such a system, even if it were certainly an improvement,¹ at the expense of a reversal of their historic policy, if not of a violation of their constitution, or *raison d'être*. There is much force in the remarks made by various eminent persons, to the effect that it is part of the fundamental constitution, or theory, of a University, that the instruction there given is open to all; or, to put it otherwise, that such is the understanding between the nation and the Universities, from which it is not open to the Universities to depart without the national consent.²

¹ 'Some, however, might agree with the view which has been expressed, that junior University classes "would be found not only a sufficient substitute for high preparatory colleges, but in some respects the more effective system of the two." Some such idea, undoubtedly, led to the foundation of the "Pedagogium," or College of Glasgow. And when the Glasgow Graduates' Association deprecate an entrance examination, which might make education "tedious and expensive," they probably considered attendance on a junior University class as effective as several years of school, and so a saving both of time and money.'

² 'There can be little doubt that the Parliamentary justification of the annual grants to the Scottish Universities is that these are accessible to the poorest of the community. As an example of the feeling in the House of Commons on the subject, take the following incidental remarks made in the debate, 9th July 1875, on the report of the Endowed Schools Commission:—

"Mr. Ramsay.—With regard to the question of University education, he was

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'Such national consent might, during the subsistence of the power of the Universities Commissioners, have been asked in the manner prescribed in the Act,¹ and the Commissioners might thus, subject to the approval of Parliament and Her Majesty in Council, have made effective arrangements binding on all the Universities in such manner as they thought for the public good; but they made no proposal of the sort, and their powers affecting the external relations of the Universities have expired with them, except so far as the general public may be affected by alteration of Ordinances, under the sanction of the Queen in Council on behalf of the public.

'D. Another argument is derived from what is called the "reflex" action on existing schools of an entrance examination. But just as it is said that the University interest is against excluding students, might it not be alleged that the schools would not be eager that their pupils should pass the University entrance examination when the alternative is that they remain at school? But, discarding this suggestion, and allowing that the prospect of future academic success of the pupils has some influence on some schools (and passing by also the doubtful question whether it is good for a school to be influenced in this way), is it desirable to hold up, as a test of school teaching, the passing of a paltry examination, instead of success throughout the University course and in after life? Is not this leading the schools "to cram with surface knowledge," instead of "teaching how to acquire knowledge," and encouraging those who teach "the easy trick of the examination" (as Dr. Whewell says), at the expense of those who conscientiously and painfully train their pupils to profit by future instruction?

"So far as it affects the systems of the schools, it will do them harm, as every attempt to make a long course of study bear upon a single examination must do. But probably it would not affect the schools much."—*Whewell*.

'It is to be observed, that while all that has been said is applicable to exclusion from instruction in any one subject, as well as to exclusion from the whole University, there are special difficulties in excluding from one class and not from others.

'Every matriculated student is "free of the University," and entitled

sure that the hon. gentleman (Mr. M'Laren) did not feel that enough had been done for the poor when they had simply been provided with the elementary education, writing, and arithmetic. That was not the Scottish idea of education at all. The Scottish idea was that the higher branches of education should be placed within the reach of the working classes—(hear, hear)—and that the poor should get the higher education, otherwise the idea of the founders of the Scottish system would not be fulfilled."

"*Mr. Barclay* quite agreed that while the elementary education was to be provided by rates under the new Education Act, the people of Scotland looked forward to a system of secondary schools and secondary endowments, which should act as stepping-stones by which pupils might rise from the lowest class to the highest University education."

"*Sir E. Colebrooke*.—Unfortunately, while having a good system of elementary education, and Universities that opened their arms to all comers, Scotland was worse supplied with secondary schools than England, or any other part of civilised Europe."

'It is obvious that till there is a proper system of secondary schools, the junior University classes are the "stepping-stones" by which the poor reach the open door of the Scottish Universities, and that these members would not approve either of shutting the door or of removing the stepping-stones till the bridge is built.'

¹ 'The Commissioners had power (sec. xv. 5) to make rules for the conditions under which students should be admitted to the Universities, such rules to be published for five consecutive weeks in the *Edinburgh Gazette*, and to be laid before both Houses of Parliament, and thereafter submitted for the approval of Her Majesty in Council.'

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to be enrolled for instruction in any class which he thinks he will profit by. If this constitutional difficulty were evaded, it is still not easy to see any principle on which the details of a partially exclusive examination could be adjusted. Would it not necessarily include English and other school subjects, as well as Latin, Greek, and mathematics? Would failure in English not exclude from all classes, if from one? From what classes would failure in arithmetic not exclude? Is the *δυσμετρητος* to enter the mental philosophy classes? Would failure in geometry not exclude from natural philosophy, engineering, etc.? in Greek from Bible criticism? from Hebrew? Or are those who are found incompetent to attend the junior classes to be allowed (as the late Professor William Ramsay put it) "to flood the more advanced classes," or, in the words of Professor Sellar's *Address* (p. 26), "to bring a less educated class than at present to the study of philosophy and literature"?

'The only consistent method of solving a multitude of such questions is to make failure at any entrance examination exclude from all classes, if from one;¹ that is to say, the only kind of exclusive examination at all defensible is a "matriculation examination."

'The results of this investigation seem to be:—

'That any sort of exclusive examination would not effect any improvement in University teaching.

'That the imposition of any condition of admission to the University is not an internal arrangement, but materially affects the external public, and is *ultra vires* of the University.

'That the feeling of Parliament would be against legislation for the purpose of excluding from University education the poorest part of the community, even if such exclusion should enable the select few to receive a higher polish—an improbable result.

'That there is no benefit either to the Universities or to the public likely to arise from an exclusive examination sufficient to induce the Universities to wish for, or the Legislature to consent to, any such examination, at least until the subject of secondary education be taken up by Government.

'II. The *preliminary* examinations in Latin, Greek, and mathematics, instituted by Ordinance No. 14 of the Universities Commissioners, enable those who pass to complete the course of study for the degree without attendance on the three junior classes. This arrangement may be considered a judicial settlement of the question between the public, seeking free access to the University, and the schools, claiming a monopoly of elementary teaching in classics and mathematics. Its effect is to meet the views of those, whom Dr. Schmitz represented, by putting good schools on a par with the University in the teaching of the subjects of the junior classes as a qualification for the degree. These examinations may be said to be serving this purpose. They have from year to year been more largely taken advantage of by a certain number of schools, which are thus enabled to keep their better scholars for an additional (sixth or seventh) year of school life as a substitute for the first of the four years of study for the Arts degree. It is said that in some schools there is a class for the express purpose of "preparing" boys for these examinations for a few weeks before they take place. If this is at all a general effect of the preliminary examinations, the "reflex" action on the schools has not been beneficial. But there

¹ 'Or, to take the German system of making failure exclude from the higher faculties, but not from that of Arts. See Appendix, *post*, p. 132.'

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is no reason to believe that systematic "cramming" for this examination is induced in many cases.¹ It of course remains an open question whether a man is better educated by spending (say) seven years at school and three at the University, or six at school and four at the University. This is a point which must be left to the judgment and experience of parents and their advisers, and it is right that their judgment should be unbiased by such considerations as were alleged by Dr. Schmitz. There does not seem to be at present any reason for modifying this arrangement, or any University means of extending its operation. But it is obvious that so soon as the public find (or make) school education better than that of the junior classes, its operation will be to supersede the junior classes, and to effect all that is expected of any entrance examination; and it may be added, that such a natural self-adjusting process is better than any new artificial appliance. In Professor Sellar's *Address* (p. 27) attention is called to the fact (common in Glasgow as well as Edinburgh) that a fair proportion of those who pass high in this examination prefer to take a year of the junior classes before passing into the senior, and the inference is justly drawn that these best students of the schools do not find the time spent in the junior classes wasted. Other reasons are given (p. 28) for the belief that "our junior classes are at present, on the whole, the best nursery of our future scholars."

'III. The only remaining kind of entrance examination is that above called *Initial*.

'Examinations of this sort would be compulsory only on those who purpose to reckon the session a part of the course of study for the degree, or for a bursary, or other University purpose; but would not be required from those who wish to attend the class merely for instruction—that is, technically, as "private" or "amateur" students. This seems to be the sort of examination contemplated in both the proposals before the Senate.

'The institution of such an examination does not present a constitutional difficulty, such as stands in the way of any "exclusive" examination. There is a regular statutory method of introducing such examinations, viz. by altering the Ordinance (No. 14) regulating the course of study for the degree in Arts. Such alteration would seem to be necessary in any case, in order to add the requirement of passing an entrance examination to the other conditions imposed on candidates for a degree, but would be sufficient if the examinations were restricted to such candidates. It has, however, been suggested that, since it is provided in the Ordinance as it stands that no student shall pass from the junior to the higher class unless the professor be satisfied of his fitness, an alteration of the Ordinance might be dispensed with by the professors holding an "initial" examination of their junior classes on the preliminary part of their subjects early in the session, and declining to admit to their senior classes any student who had in the junior class failed at this "initial" examination. But it may be objected to this, that it would scarcely be fair, if indeed competent, for a professor to refuse enrolment in his senior class to a matriculated student, claiming in a subsequent session to enter that class, and showing himself then fit for it; and that to do so would be impolitic, as discouraging vacation study preparatory to the higher class, which is not less important than preparation for the junior. This objection applies also to

¹ 'Perhaps the practice of publishing the order of merit of those who pass the preliminary examinations and their schools fosters "cram."'

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any strict regulation making the granting of a certificate of attendance on the junior class dependent on passing an initial examination. No hindrance should be put in the way of students receiving full advantage from making up leeway by private study in vacation, and it certainly would be a great discouragement to a student to be told that, however much he might improve himself in the vacation, he would have to take the junior class again. This penalty should be reserved for the utterly idle and inattentive, and not inflicted on those who are just beginning to learn how to teach themselves, and who should have every inducement to practise that lesson.

'Besides, it is not so difficult to foresee that so illogical a practice as to make a certificate of attendance on a class depend on an examination in the early part of the session on matters not taught in the class, even if it were possible to begin it, would soon become a mere cumbrous form, wasting the time of both students and professor distastefully to both, and then disappear, as the Glasgow Blackstone examinations have done.¹

'It then appears that if an "initial" examination is desirable, the proper, if not the only way of introducing it is by alteration of the Ordinance, which will have the advantage of affecting all the Universities equally, and so get over one difficulty.

'But the question still remains, What would be gained by this entrance examination?

'The preceding investigation does not show much prospect of advantage from this any more than from any other form of entrance examination.

'But some specific effects not altogether advantageous are likely to ensue.

'The number of candidates for the degree in Arts would be diminished in several ways—

'1. The necessity of passing the entrance examination would be a direct obstacle.

'2. At present, students often come to the University without any idea of taking a degree, but after attendance for a session or two, they are stimulated to complete the course and pass the examinations. These would not have passed the entrance examinations, and would thus be excluded from the degree, for which they are quite fit.

'3. Failure at the initial examinations would add a third session of classics or mathematics to the two at present required for the degree. This would in many cases be fatal to the completion of the course, and in many others would occupy time which might be more profitably devoted to the more advanced classes, or to special studies. Another effect would be to increase the number of "private" as compared with "public" students, which is mischievous.²

'The main object of the University must be to instruct the greatest number in the best manner; the granting of degrees is only useful as a stimulus to education, and it is inexpedient to deprive those who have

¹ 'As a test of the practical utility of such an examination, would it not be worth while to compare the results as regards scholarship in the Greek class of the University of Edinburgh during the time an examination of this sort was in operation, with the Greek scholarship of Glasgow students when no such examination was held?'

² "'I fear the result might be that the amateurs, or, so to speak, our non-combatants, would soon outnumber our effective forces, and that neither to the improvement of our discipline, nor to the encouragement of University teaching and graduation."—Professor Sellar's *Address*, p. 25.'

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not this stimulus of the prospect of a certificate and the other conditions of "public" studentship.

To this paper I add an appendix, which may also be included in my evidence. It is as follows:—

'The following account of the manner and object of the *abiturienten-examen* of the Prussian State system of education is abridged from Matthew Arnold's *Schools and Universities of the Continent*, 1868.

'In 1863, Prussia, with a population of 18,500,000, had 255 higher schools, with 3,349 teachers, and 66,135 scholars, of which 172 schools, with 45,403 pupils, were Government classical schools = *gymnasien* = public schools.

'The preponderance of the *gymnasien* is secured by the *abiturienten-examen*, on which depends admission to the Universities, while the learned professions can only be reached through the Universities.

'The pupils of private tutors or private schools can present themselves for this examination, but it is held at the public schools. It turns upon the studies of their upper forms, and is conducted (under State superintendence, through the provincial school boards) in great part by their teachers. A public school-boy undoubtedly presents himself for it with advantage; and its object undoubtedly is, not the illusory one of an examination test, but the sound one of ensuring as far as possible that a youth shall pass a certain number of years under the best school teaching of his country. This really trains him, which the mere application of an examination test does not; but an examination test is wisely used in conjunction with this training, to take care that a youth has really profited by it. No nation that did not honestly feel it had made its public secondary schools the best places of training for its middle and upper classes could institute the leaving examinations to be described."

'Since the State regulations of 1834 and 1856, the previously existing entrance examination to the Universities (which was apparently felt to be a "sham") has been superseded by this *abiturienten-examen* or examination of the boys leaving the public school (*gymnasium*). The *abiturient* must have been two years in the highest forms. He is examined in the mother tongue, Latin, Greek, French, mathematics, physics, geography, history, and divinity, and, if he is going to enter the Theological Faculty, in Hebrew. The examination is both in writing and *vivâ voce*; the paper work lasts a week.

'The candidate who passes receives a certificate of ripeness (*Zeugniß der Reife*).

'The candidate who is considered *unreif*, and not passed, may still go to the University, but cannot enter himself in any faculty except that of Philosophy.¹ He can attend lectures, but his time does not count for a degree, and he cannot hold any public benefice or exhibition; he may be examined once more, and only once, at a gymnasium; his curriculum only begins to count from the time when he passes.

'The reader will recollect that for the learned professions—the Church, the law, and medicine—and for the post of teachers in the high schools and Universities, it is necessary to have gone regularly through the University course, and to have graduated."

'Candidates who have not been at a public school, but who wish to enter the University, must apply to the provincial school board to be examined for a certificate. They pay a fee of ten thalers. If they

¹ 'In the German Universities there are four faculties—Theology, Law, Medicine, and Philosophy. Philosophy embraces the humanities and the mathematical and natural sciences.—*Arnold*, p. 225.'

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fail they may be examined a second time, but only twice. They may, however, if they fail, go up to the University on the same conditions as the public school boys who fail. These *externi*, as they are called, are not examined along with the *abiturienten* of the gymnasium, but have an allowance made for their not being examined by their own teachers, and are so far more leniently treated in the examination than the *abiturienten*. But boys who have been at the gymnasium, and have left it in order to prepare themselves with a private tutor, are not entitled to any special indulgence. Indeed, a public school boy, who leaves before completing attendance for two years in the highest form, needs special permission from the Minister in order to be examined.

"So well do the Prussian authorities know how insufficient an instrument for their object—that of promoting the national culture, and filling the professions with fit men—is the bare examination test; so averse are they to cram; so clearly do they perceive that what forms a youth, and what he should be induced to acquire, is the orderly development of his faculties, under good and trained teaching. . . . That a boy shall have been for a certain number of years under good training is what in Prussia the State wants to secure, and it uses the examination test to help it to secure this. We leave his training to take its chance, and we put the examination test to a use for which it is quite inadequate, to try and make up for our neglect."

Now, I wish specially to say, that one of the best students I have had, who was taught at a village school twenty miles from Glasgow, and who is now a very good mathematical teacher, told me that in his day there were two schools in that parish, at either of which he could have been, and at one of which he was extremely well taught in mathematics; while at present there are numerous schools, and you could not get teaching of that character in one of them. I have also here the result of the deliberation of the Faculty of Arts on the subject. I shall take the liberty of reading it:—

'The Faculty of Arts having considered the printed abstract of the evidence on the subject of Entrance Examinations given to the Commissioners under the Universities (Scotland) Act, 1858, the action of the Commissioners proceeding upon that evidence, the "Remarks on Entrance Examinations" ordered to be printed by minute of this faculty, of date 15th November 1875, and a statement by the Professor of Latin of the nature of a voluntary initial examination of the junior Latin class he has held this session, and of the statistical results of that examination, beg leave to report to the Senate on the subject of the minute of the University Court referred to this faculty, by minute of 30th April last, for consideration and report, as follows:—

'I. We are unanimously of opinion that any examination, failure at which would altogether exclude from University instruction in any subject, is not expedient; and we do not understand the University Court to contemplate any examination of this sort.

'II. We think that examinations, failure at which would not exclude from admission to any class for the purpose of instruction, but which should have to be passed before attendance on certain classes should be reckoned as part of the attendance for the degree or other University purpose, are practicable; but we are divided in opinion as to whether any such examination ought to be instituted.

'III. But if any such examination be adopted—

'(1.) We are agreed that an entrance examination in Greek is inexpedient at present, though one of our number holds that an examination in Greek should be instituted, and suspended for a period.

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‘(2.) We are agreed that any candidate failing at such an examination ought, for some years, to have an opportunity, at a later period, of passing an examination, the effect of which would be to entitle him to reckon his previous attendance as part of his course for the degree, and that the same privilege should accrue to a student passing, at entrance to the senior class, the “preliminary” examination established under Ordinance No. 14, section 1.

‘IV. We think that unity of action among the four Scottish Universities in this matter is almost indispensable.’

8588. *Dr. Muir*.—Do you think the present standard of University examination is sufficiently high, or do you think it desirable that it should be raised?—If you mean that at the end of the course the students might be brought up to a higher point in every way, of course it would be better.

8589. But you don't see that the means by which that object could be attained are in an entrance examination?—No; not by keeping them out at the beginning.

8590. *The Chairman*.—Do you think the demand for better preparation would create the supply?—No; I think it would simply be keeping away the students, and you would diminish the number of men getting University education; and we should thereby lose all the clever fellows who come up who have not been able to get a good education, but who very often turn out the very best men.

8591. *Dr. Muir*.—Do such men carry on their studies afterwards and turn out eminent men?—Well, I have not had experience of very eminent men from Scotch or English Universities in my time; but certainly I have had students from country schools who are now in good positions. Several mathematical students, whom I remember, were enabled to go to Cambridge by obtaining scholarships at Glasgow. One, from St. Cyrus, was second wrangler, is a Fellow of his college, and is now Commissioner of Public Works at the Cape. I understand he is considered Minister of Education there. Another, from Irvine, got the first Smith's prize, was a Fellow of his college, and afterwards Professor of Natural Philosophy at Owens College. A third, from Rothesay, gained the first Smith's prize, is a Fellow of his college, and is now Professor of Mathematics at the Royal Naval College, Greenwich. A student who came to me from Greenock, was senior wrangler, and got a Fellowship at Cambridge; he is since dead. A student from Sutherlandshire (who did not go to Cambridge) was for some time Professor at the Royal Military College, Woolwich. The student I formerly referred to as taught in a country parish (where there are now numerous schools incapable of giving the same education), after being my assistant for some time, is now Head Mathematical Master in the High School of Glasgow, and an F.R.S.E., and has made advances in and written good papers on mathematics. I don't find that the town students are better than the country ones.

8592. Looking to the present standard of education in the Universities, don't you think the same standard might ultimately be attained outside without coming to the University at all?—You mean that Universities might be abolished altogether?

8593. Or produce a still higher class of students?—I don't see how we are to get the material. I think we do the best with the material that comes to us. The two greatest men in natural philosophy in Great Britain are Scotch men—Sir William Thomson and Professor Clerk Maxwell.

8594. *The Chairman*.—The next question is, Whether any new pro-

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fessorships or lectureships are required in the University?—I am not aware of it. Under that head, if there is to be a new Act, I think something should be done in the way of settling who are to institute new chairs. The provisions in regard to that matter are rather vague at present.

8595. *The Lord Justice-General.*—What do you understand to be the existing rule?—The Crown and the Senate both seem to be able to institute a chair. I think it is a thing that should be done very deliberately in some way. It is a matter which a little concerns the Treasury, because, if a new chair is instituted, not only has it to be endowed, but a new retiring allowance has to be found for it—at least there is the possibility of it. I don't think the number of members of Senate should be rashly increased.

8596. The University has a very material interest in that?—Yes.

8597. *The Chairman.*—Have you anything to suggest in the way of an amendment of the practice in that respect?—I would like to say that the Crown should not have the power of establishing chairs—that a chair should never be instituted by the Crown—unless there be found not only funds for the salary, but also for the class-room and class expenses, and so forth. In Glasgow, the Crown suddenly took away from the University the revenues of the Archbishopric of Glasgow, which it had enjoyed on renewals of a twenty-one years' lease from the time of William III. At the end of the lease, about the year 1825, renewal was refused, and the Crown authorities said instead, 'We will give £800 a year for a certain period;' that was, I think, possibly for twenty-one years. Then, at the end of that time, they endowed with the £800 seven new chairs, for which the University has had to find class-rooms and apparatus. These were principally Medical chairs and one of Civil Engineering. It was a little hard on the University to have its income cut down, and its expenses increased, at one blow; this is one of the causes which made the University of Glasgow, which was tolerably well provided at that time, and had a small amount of working expenses, a poor University, with large working expenses, and a small income.

8598. *The Lord Justice-General.*—One of the conditions which you think should be made imperative on the establishment of a new chair, is that funds should be provided to endow the professorship, and that accommodation should also be found for him, for the professor meeting his class?—Yes.

8599. In whom would you vest the power of instituting a new professor?—It would be an improvement on the present system if it could only be done by statute;—I think there should be some power of making statutes in the University.

8600. Then you think it should be by statute of the University?—Yes; which neither the Court nor the Senate could break separately. That would give a certain formal character to the institution of a chair, and a guarantee that it would not be instituted on a sudden without sufficient consideration by everybody. I think the Crown has a little arbitrary power in these matters; for instance, they have the power of suddenly sending down a commission, without providing anything in the way of establishment. I don't know how that is to be arranged.

8601. *Dr. Muir.*—But the Crown would always grant an endowment if it appointed a professor, would it not?—The Crown has sometimes given nothing, sometimes £50, £75, or £100 a year. The chair of Chemistry was, I believe, instituted originally in 1815 without salary,

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class-room, or apparatus. In 1840, £200 of the £800 taken from the University was appropriated to it.

8602. *The Lord Justice-General*.—You don't suggest the need of any new professors, do you?—No. I think increasing the number greatly is a very doubtful measure.

8603. *The Chairman*.—Is there not a great want of provision for the teaching of history in your University?—There is no teacher of history as a separate subject.

8604. Don't you think it desirable to provide for that?—If a lecturer on history were appointed, that would give the instruction without the creation of a new chair. But unless you put it into some curriculum, a chair does not thrive; and the question is thus raised, how you are to bring in history as a part of a curriculum.

8605. Why should it not be taken as a substitute for something else in the Faculty of Arts, I mean optionally?—A chair of History is the only one which it has occurred to me as proper to have in that way. It might come in as a substitute for a part of mental philosophy.

8606. Do you think that modern languages should form the subject of a chair?—No; I hardly think that that is a necessary subject. There is one point about the institution of chairs which it is desirable to consider, namely, that, if subjects are well taught outside the University, it is hardly necessary to have them inside as well. For that reason, I think, the medical chairs have been unduly increased in number.

8607. Would not that apply to every kind of teaching?—I would distinguish between teaching for giving knowledge, and teaching for the purposes of giving education. Teaching for education within the walls of a University is very superior to the teaching outside; but if it is only so much knowledge that is wanted, I do not see why it cannot be got as well outside the University as inside, or from books. This is the case with some of the chairs in the Medical Faculty. It is merely information which is generally wanted in the teaching of medical students. They are not supposed to be educated in the sense that the students are educated in the Faculty of Arts. There is merely a certain amount of technical knowledge imparted to them; and that knowledge, it is possible, may be got as well outside the University as inside. My view would rather be, that instead of having extra-mural teachers competing with the chair inside the University, if the extra-mural teaching is good, abolish the chair;—what's the use of it?—that is, if it's to be teaching, not for the sake of education, but only knowledge.

8608. *The Lord Justice-General*.—Where would you draw the line between teaching for communicating knowledge, and teaching for the purposes of general culture?—I think it is clear. There is professional education, which is given entirely for the purpose of communicating knowledge of technical subjects. Then there are the Arts subjects, and subjects such as geology, natural history, and chemistry, which are not merely professional subjects, but educational as well.

8609. But in the learning of chemistry or natural history, do you acquire any advantage except knowledge?—In natural history you do, and I think in chemistry likewise. The sciences of natural history and botany are distinct in their methods from natural philosophy, for instance.

8610. Would you class them together in a distinction?—Botany and natural history most distinctly together.

8611. The line of distinction would rather be, that when you get beyond language and literature and into science, you would be between

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pure science and professional studies?—Yes. There is physiology, again; another subject partaking of both natures. Another sort of distinction which is useful, and which we should keep in mind, is, that in regard to these non-professional subjects we are talking of, they are taught by men devoting themselves to the subject. The branches of professional education are taught by professional men who are working at their profession, and take that teaching for an hour or so a day, as an extra.

8612. Are the present professors sufficiently provided with assistants and apparatus?—Certainly not; particularly for physiology, there is no provision. This is an instance of a chair instituted by the Crown, with nothing but a salary of £75 a year. There ought to have been extensive apparatus attached to that. That—the Physiology chair—is a case in which great expense is thrown on the University for a proper laboratory and working apparatus for the professor, and it is the Crown which ought to provide it. With reference to my own department, there is considerable want of what we may call an examining assistant. There is a piece of work thrown upon the professors, which besides being very irksome sort of work, is a frightful burden, and takes up a very great deal of time. I mean the written examinations. I have instituted written examinations, and find it necessary to have them. I find that in the course of a session there are some 10,000 quarto pages of answers in such examinations, and somebody has to look over and assign a value to each page.

8613. Have you any assistance in that work?—Yes; I have an assistant who helps me in this sense, that he is a teaching assistant. I understood his appointment was to help me with the teaching work; but there is this examining work to do besides. The first thing I did on getting an assistant—and I told the former Commission that that seemed to be the use of an assistant in my department—was to divide the class. The students were very unequal in their knowledge of mathematics when they came to me; and the first year I said: 'Now, you are aware that some of you are much better advanced than others; and it will be very advantageous to divide the class into two. I propose that all of you who think the teaching in my class too advanced should go to my assistant's class, and I will take the others.' The class made their election, and divided itself into two equal halves. Then came the question of hours. The hours were all very much filled up. I found the proper thing to do was to teach the classes at the same hour—one-half by me and the other by my assistant. That has gone on since, till at last the class has become too big again, and my assistant has two hours of it. I go on in my old way; from the beginning I have had two classes taught at two hours. My assistant has not taken a single hour's lecture for me. Most of the other professors with assistants have diminished their hours of lecture by a half; but I am as much tied down as I was before.

8614. Do you say anything to the students taught by your assistant?—I do not lecture to them, but I know what is going on in my assistant's class. I have always had excellent assistants.

8615. Does attendance on that assistant without your having a share in the teaching count as one of the years' attendance for a degree?—Yes; and it is the best way of working, so far as I have been able to see.

8616. *The Lord Justice-General.*—It may be a matter of necessity, but it is the case, is it not, that you do not at all superintend the teaching of the assistant?—I cannot be in two places at once; and from practical necessity the hour of both classes is the same. Last session,

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I tried to change the hour, so that if I fell ill, my assistant might take my class. If I had been summoned here on a Monday, I should have had to give up my class, while in the case of other professors they could fall back on their assistants. Last session I said, 'I will have a different hour fixed for one of the classes, and then I shall be able to look in at my assistant's class;' but that proposal was instantly opposed by the professor who had a class at that hour, putting his objection on the ground that that hour was convenient for the students attending his class. I was not allowed to change.

8617. Then what remedy do you suggest?—I do not think the thing is working badly. I do not see the necessity for a remedy. On the other hand, however, there is a great amount of examination papers, and what I say is wanted, is some one to look over those papers and report upon them, and do what a Cambridge coach does—call up the man on his papers, and explain his mistakes. Now that is what I cannot do with four hundred students which I have just now; and it would be very desirable to have it done. A Fellow is trying to do it for me, but the work is not well organized yet; and it seems to me that I ought to have an assistant whom I could train up in the work.

8618. You speak of assistance of that kind as being different from assistance in teaching; but is not examination, after all, a part of teaching?—Yes; but I mean that that would be technically the business of such an assistant, and that he would not have to lecture.

8619. But would it not be the best remedy for the overwork you find in the department of revising exercises to have another teaching assistant?—Another assistant competent to teach; and he might be employed in the way I find best.

8620. *The Chairman.*—Or in both ways you have suggested?—Yes; I think it would be quite possible.

8621. How is your assistant paid?—Government gives £100 a year, which is a great deal too little.

8622. Are all the assistants provided in that way?—Entirely provided in that way by Ordinance of the Commissioners.

8623. Then your University has not done what others have done—given additional assistance out of the University funds?—We have no funds for that. Our funds are in a bad way.

8624. Are you equally devoid of money for class expenses?—We have nothing for that. We began to try and give class expenses to professors not provided for by Ordinance, but we found that too much for us, and we do nothing in that way now, except printing the examination papers.

8625. Do you not give the scientific professors anything?—Nothing, except what is provided by the Ordinance. We have no funds to apply in that way; for if we once began, it would be a very large sum that would be required; if you give to one you must give to another.

8626. Does what you said in regard to your assistant being insufficiently remunerated apply to assistants generally?—Yes.

8627. Do you approve of the present length of the University sessions?—Yes; it is one of the things which have settled themselves by natural selection, and you can hardly meddle with it without doing harm.

8628. Do you approve of extra-mural teaching to the extent it exists in Glasgow in the Faculty of Medicine?—I have hardly considered the subject; but I gave my general view on the matter a little time ago, namely, that if the extra-mural teaching is sufficient, I hardly see the necessity for the chair.

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8629. Except in this respect, that the chair gives a permanent security for the teaching which extra-mural teaching does not!—Of course. If permanent extra-mural teaching is given, then I do not see the necessity of the chair in a technical subject; but in a scientific subject I don't think extra-mural teaching is the same thing—it is different in an educational point of view, and cannot be substituted for University teaching.

8630. Do you think any benefit would be derived from extra-mural teaching in the Faculty of Arts?—No.

8631. *Dr. Muir.*—Is not competition a good thing?—No; there is a great fault in competition. What would it be competition for? Simply for coaching men to pass a certain examination. The result of that would be that the professor would either be outbid, or he would take to cram for the examination; and it is utter ruination to a man to teach for the purpose of making his students pass an examination. I have got extracts from different places on the subject, and the best opinion everywhere is to the effect that teaching for the special object of examinations is utterly bad. In some *Essays on the Endowment of Research*, Mr. Mark Pattison made some remarks on the subject, which I put down at the time, thinking them very important as a view of extra-mural teaching. You see the necessity for extra-mural teaching would be for competition to bring men up to an examination point. The competition would make the professor a coach, instead of inducing him to teach the scientific subject. If he disregards competition, then, of course, you are diminishing his emoluments. Competition would not improve the professor's teaching; I say it would ruin his teaching. Mr. Mark Pattison, in his *Essays on the Endowment of Research*, after stating that the Jesuits invented examinations (p. 20), says: 'In France and in Austria, down to this very day, the Jesuit system of external stimulus by examination and prizes holds its ground. The result in both countries is the extinction of the severer studies, the enfeeblement of the spirit of research, the banishment of scientific habits of thought. University education in France has no existence. In its place stands a minutely ramified system of preparation for examination. The so-called "faculties" of letters in the provinces are wholly outside this system of cram, and seem to produce no other fruit than elegant epideictic orations delivered by the professors, not to the students, but to a miscellaneous audience of ladies and gentlemen, who come and go during the hour, and who manifest by frequent applause their gratification at the intellectual treat they are enjoying. Such is the condition of the higher education in France—the result of over-riding instruction by examinations. . . . A few only out of the whole field of teachers are reached by the inspiration of true science. To these few, to acquire and to communicate are but functions of the same mental habit. These men feel keenly the insincerity and unsoundness of all that teaching and learning which is done in preparation for examination. It is not that it is a degradation to be always confined to the elements; it is that nothing is truly known which is learnt for a purpose. Science which is not disinterested ceases to be science.' He proceeds to explain that what is called 'research' is pursuit of science for its own sake, and proceeds to criticize the Oxford Bill, which, he says, proposes to abolish 'Prize Fellowships,' and with them endow professorships. The professor symbolizes the so-called 'research':—'The very essence of the duty laid on the Commissioners is to curtail the prize system and endow "research." It is true that this, which is the plain meaning of the Bill, may not have been in the intention of the promoters.

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They may have thought that they were only transferring the endowment from the taught to the teacher, from the pupil to the tutor; not from the prize system to the system of disinterested knowledge. They may think that if you make professors, they will become the teachers of the place. It may be the object of the Bill merely to provide endowments for the tutors, whose business it is to prepare students for their examinations, to give them the title of professor, and enhanced stipends, no longer out of fees but out of collegiate revenue. Or, on the other hand, is the new professor who is to be created, to be the master of his science and its representative before the world—the man in whose person the “endowment of research” is only veiled from the sneers of Philistinism by the thin disguise of setting him to deliver a terminal course of lectures to empty benches? (p 24). Now the Scottish Universities have struck the proper mean between these two. We have professors who are not crammers, because not competing with crammers; teaching subjects scientifically, without the fear of crammers competing; and not lecturing to empty benches, but to the students. So that the Scotch University professorships, or certain of them, are endowed research appointments, and not liable to the objection of other endowed research appointments. Now, bring in competition with crammers outside, and the man is no longer a researcher at all, but a man forced to compete with cram. Therefore, I think, competition is a bad thing. In an address at Liverpool in October 1876, Mr. Pattison said: ‘But there is an immediate practical requirement which compels Owens College to seek, without delay, the right of conferring degrees. It is this: that so long as its students are under the necessity of graduating through the University of London, they must pass through the examinations required for the London degree. Consequently the professors of Owens College can never take the free and independent position of teachers of science. It is inevitable that they must prepare their pupils for examination; and every true teacher knows too well that process is incompatible with genuine instruction in letters and science.’ I think that is very much to the point. I will add one other quotation. Mr. Lankester, reviewing in *Nature* (8th June 1876) the volume of *Essays on the Endowment of Research* containing Mr. Pattison’s essay, says: ‘The chief care of the Oxford men, who write in Dr. Appleton’s volume, is to combat the insidious doctrine that *research* is compatible with teaching, in the narrow sense in which teaching is understood in Universities, which, like Oxford and Cambridge, are carried on upon the plan originated by, and worthy of, the Jesuits (see Pattison, Essay No. 1), viz. that in which competition by examination for prizes forms the pivot of all activity. The watchwords of the German Universities, “*Lehrfreiheit*” and “*Lernfreiheit*,” are (save to a very few) unknown, the idea which they express equally so, in this country. The suggestion that teaching and research should go hand in hand, appears at first sight admirable, because there can be no doubt that in the wider and higher sense of the word “teaching,” the investigator is and must be a teacher. In the German Universities it is a small tax upon the professor to give a course of lectures upon the subject with the study of which he is occupied. He is entirely free from the influence of the Jesuits’ examination system; that has been long since abolished (where it existed) in German Universities. He is never concerned for one moment with the thought as to what place his hearers may take in an examination—such examination as there is being entirely in his own hands, and having very little importance attached to it.’

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8632. *The Chairman.*—Holding these views as to the inexpediency of extra-mural teaching, do you think that the necessity sometimes pointed out of providing a remedy for an inefficient professor can be met otherwise?—The University Court is the proper remedy for that.

8633. Instructed as they must be generally by the Senatus?—The Principal is a member of the Court, and surely he ought to know.

8634. Have you formed any opinion as to the rules in existence as to the mode of electing University officers, besides what you have told us—I mean as to patronage?—I think it is a matter that would be regulated very much by statute. But, amongst other things, I think it is very inexpedient that appointments should be made in vacation time. In regard to chairs, it can hardly be helped; but certainly appointments by the Senatus—such as the librarian—should not be made in vacation.

8635. You hold that view, do you not, because full attendance cannot be expected?—Yes; and the thing is sometimes done hastily.

8636. Are the present rules in regard to retiring allowances satisfactory?—The only point I have to speak upon there is, that I think the allowance should follow—as, I believe, was intended—the rule of the Superannuation Act.

8637. Has there not been a change in the Act since the Universities Act was passed?—Not that I am aware of. The rule I point to is that a man, after a certain age, shall be allowed to retire. The Superannuation Act says that, in the case of those who are under sixty years of age, a medical certificate is required, but not in the case of those over that age; and, in fact, civil servants retire as a matter of right when they are sixty years of age, whether their health is good or bad. I read the negotiations between the late Commission and the Treasury, and I think it was *per incuriam* that the Ordinance did not express this distinctly. I thought the Treasury agreed that the professors were to be put on the same footing as the civil servants. The Ordinance is not explicit as to whether the Court would be entitled to say, when a man is sixty years of age, that his age is sufficient to enable him to retire. At all events, the Court has not been acting on the principle that it is sufficient, but has been requiring medical certificates.

8638. Would you compel a man to retire when sixty years of age?—That is a question I have not made up my mind about; I am not sure that we should not.

8639. Is there not an awkwardness in permitting a man to retire on the full retiring allowance when sixty years of age, if he is in full vigour, and if he has been appointed at a comparatively late age—say fifty or fifty-five?—In that case he would get no retiring allowance; for a professor gets no retiring allowance for the first ten years. I have no objection to the arrangement you suggest. But I think a man would probably not wish to retire till he had been thirty years in office; and if he is over sixty years of age, I don't see that his retiring is more absurd than in the case of an assistant-secretary in the Home or Foreign Office.

8640. Have you anything to say as to the mode of appointment to bursaries and fellowships?—The proper way is by competitive examination.

8641. Have you a number of bursaries that are not given by competition?—Yes.

8642. And some very valuable ones?—Yes.

8643. I believe there are ten specially valuable bursaries?—There are ten of the Dundonald bursaries, of £40 each, given by the Duke of Hamilton.

8644. Should there be authority to regulate the conditions of tenure of bursaries?—I think that again might be regulated by statute of the

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University. I think it would be a right thing, in a new Act of Parliament, to say that there should be a charge upon the bursars for the cost of examination, and the payment of the examiners.

8645. Do you see no advantage in presentation bursaries, provided the bursar was subject to a test examination?—There are advantages.

8646. You think there is no objection to taking poverty into consideration as one element, if it is accompanied by merit?—No. I don't think that competition should be applied to everything.

8647. You have said, I think, that the financial position of Glasgow University is not very satisfactory?—It is not. There is a very large debt on the building—estimated by the Removal Finance Committee at some £44,000, increasing at compound interest.

8648. Occasioned by your expenditure largely exceeding the estimates?—Yes.

8649. You have, I believe, already received considerable aid from Government?—Yes; there is no other source from which aid can come. That debt is fatal to the University; but how is it to be prevented accumulating, even at compound interest? It is a very difficult thing to get money to pay a debt.

8650. Not so difficult, I daresay, to get the money to proceed to erect a building?—No.

8651. Have you any funds from Government towards the support or maintenance of the buildings?—No. That is another point I wish to urge upon the Commission. There is no doubt that our buildings in Glasgow are national buildings—the Government ought to support them. That is my strong impression. They do so in the case of all the other Scotch Universities; or if they do not, they pay an allowance. They pay £500 a year to Edinburgh, and Edinburgh University is twice as rich as Glasgow.

8652. Was not Glasgow at one time the richest?—Yes; that was before Government took away £800 a year, and doubled our expenses.

8653. Do you not hold more permanent property?—Yes; but it is not always the thing that produces the greatest income. The teinds are sometimes a source of inconvenience to us in that respect.

8654. Do you suffer largely from the calls made on the teinds?—Yes, for augmentations, and, of course, that goes on continually.

8655. Are there any other payments from which you think the University fund ought to be relieved?—My impression is strong that a certain allowance should be made for class expenses, and that they should not fall on the general University fund. When the Commissioners established the financial Ordinance in Glasgow, we were in a different position, for we had no debt at that time. The Commissioners raised our income, by raising the matriculation fee of the students; but at the same time that they trebled the matriculation fee of all the students, they put on certain allowances, to be paid to certain professors for class expenses. That seemed to me to be in a measure taxing the general body of the students for the benefit of a certain portion of the students; for instance, taxing the students in Arts to diminish the expenses of the students of Anatomy; taxing Latin and Greek students for the benefit of the students of Natural Philosophy.

8656. *The Lord Justice-General.*—But the matriculation fee is only one source of income of the general fund?—Yes.

8657. And by no means the largest?—You must take off the burdens on the University income, and my impression is that there is a certain spendable sum of perhaps £2,800 for general expenses in Glasgow. The matriculation fees produce about £1,700.

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8658. That may be so, and that would be a large proportion of your free income; but you must take the matriculation fees in proportion to the gross income in answering my question?—That depends on whether you consider the gross income as including the income of the professors.

8659. I am speaking of the general University fund. How much do you draw from graduation fees?—I cannot say this year, but I had to make a statement to the finance committee in March 1875, in which it appeared. The Medical Faculty came to the Senate, and said they wished to have additional medical examiners, and proposed that we should pay out of the general University fund £240, in addition to £240 a year which the Government allows for medical examiners. The question came before the finance committee, who considered the point, and reported in March 1875 as follows:—

‘The financial aspect of this scheme is a proposal to charge the general University fund with an annual burden of £240 for additional medical examiners, advocated on several grounds which are shortly as follows:—

‘1. That the reports of the committees of the General Medical Council who visited the medical examinations of this University in October 1873 and April 1874 show that “some improvement in the existing system of conducting the medical examinations is imperatively called for.”

‘2. That the University of Edinburgh has taken certain steps to alter its system of examinations, involving a charge of £300 per annum on its general University fund.

‘3. That the whole of the medical graduation fees are thrown into the general University fund and applied to defray the general expenses of the University, and no part specially appropriated to the expenses of the medical examinations.

‘The sort of claim made in the last of these arguments asserts a principle not only opposed to the spirit of the financial Ordinance No. 22 of the University Commissioners, and calculated to re-introduce “distinctions” between the various departments of the University specially abolished by the 26th section of the Universities Act, but a principle also which, if generally acted on, would introduce financial confusion, and necessitate a balancing of expenditure and revenue due to different chairs or group of chairs, on which it is plainly undesirable to enter in detail. But, without going into the complex question of the expenditure on different departments, it may give information to some members of Senate, if we observe that in last session (1873-74)—

The amount of medical graduation fees was . . .	£1,117	10	0
The sum from matriculation of medical students, . . .	319	0	0
	£1,486	10	0
Charge for class expenses, etc., under Ordinance, . . .	855	0	0
Net sum for general expenses of the University, . . .	£1,081	10	0
Amount of graduation fees in three other departments, . . .	£414	1	0
And of matriculation fees,	991	0	0 ¹
	£1,405	1	0
Charge for class expenses, under Ordinance, . . .	100	0	0
Net sum for general expenses of the University, . . .	£1,305	1	0

¹ ‘In the present session the medical matriculation, including summer session, produces £355, and the matriculation of other students £1,114.’

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From which, however, possibly £125 for degrees in Science should be deducted, leaving £1180 contributed by the residue of the University to compare with the £1081 contributed by the Medical Faculty.

'The second argument, derived from the example of Edinburgh, is one which has various aspects.

'It may be that this University should generally follow the lead of her "metropolitan" younger sister, but in financial matters it is unfortunately impossible to do so.

'The annual income of the general University fund in Edinburgh is stated in the last Edinburgh Calendar at £8740, after deduction of income tax. This, however, includes £575 compensation for the Stationers' Hall privilege, which, together with £162 of taxes and £160 of factor's salary, should be deducted, leaving net £7843.

'In Glasgow, the same fund, less taxes, amounted last session (1873-74) to £6004, 12s. 6½d., from which should similarly be deducted factor's charges £550, 15s. 4d.; £21 of contributions to police; and £230, 4s. 11d. cost of Observatory and £221 for Museum (for which there is no charge in Edinburgh), leaving net £4981, so that the available fund of Edinburgh is at least £2800 (or one-half) more than that of Glasgow.

'But it is to be observed also that the unavoidable expenses of cleaning, service, heating, lighting, maintenance of roads and grounds, and insurance in Glasgow amounts (after much effort to reduce it) to £2167, while in Edinburgh the charge is only £1158, or £1000 less per annum. This shows that Edinburgh has a power of spending £3600 per annum more than Glasgow (or, to put it in another form, Edinburgh has £7843 - £1158 = £6685, while Glasgow has only £4981 - £2167 = £2814, or less than half).

'The manner in which the spending power has been exercised in Edinburgh, before allocating £300 a year to additional examiners, will partly appear by the following notes comparing various items in the Edinburgh accounts with those in Glasgow:—

	<i>In Edinburgh.</i>	<i>In Glasgow.</i>
1. Expense of University Court, £105		0 0 0
2. Secretary and Clerk of Senate, 328		{Registrar and Clerk} £178 0 0 of Senate,
3. Dean of Medical Faculty, . 100		0 0 0
4. Dean of Faculty of Arts, . 50		0 0 0
5. Library, . 1,166		706 0 0
6. Museum ¹ (Anatomical), . 194		0 0 0
7. Do. (Botanical), . 50		0 0 0
8. Do. (Natural Philosophy), 50		0 0 0
9. Repairs, . 636		171 16 9½
10. Class Assistants and expenses, } exclusive of those under } 894		33 19 0
Ordinance, . . .		
11. Examiners for B.D., . . 42		0 0 0

8660. *The Lord Justice-General.*—But the question I put to you and want to repeat is, What proportion of the gross income of the general fund consists of matriculation fees? Is it not about one-sixth?—I suppose £6004 is what you call gross income.

8661. I call it £7409 according to your published accounts in the Calendar of 1874-75. Now of the gross income there is furnished from that source £1464, 10s. 0d., which is about one-fifth?—Yes; nearly a fifth.

¹ 'Observe that Government provides for the expenses of the General Museum in Edinburgh.'

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8662. And there is paid out of the general fund towards assistants and class expenses £420 ?—Yes.

8663. Then what did you mean by saying that increasing the matriculation fees was taxing one body in favour of another ?—Because, if the matriculation fee had not been increased, it would have been impossible to pay the £420.

8664. But why take the matriculation fees as being applicable to that purpose more than to any other ? Why not say that the matriculation fees are given entirely to support the library ?—Because the library was supported before, but the charge of £420 is a new charge for diminishing below its commercial value the cost of certain education.

8665. Why should you not hold that that diminution of that cost below its commercial value is furnished by the graduation instead of the matriculation fees, the whole being slumped into one ?—Trebling the matriculation fee was the way in which the fund was first brought up to be sufficient to bear this charge, for the purpose of giving a bounty, as it were, to certain classes.

8666. Don't you think it might be as necessary to enable you to make some other expenditure which you actually do out of the general fund ? I do not see how you can specifically appropriate one item of income to one item of expenditure in the administration of the general fund ?—The Commissioners raised the matriculation fees on the one hand and put on certain charges on the other hand, and I only say that the purpose of the one was to defray the other.

8667. Did they not also alter the graduation fees ?—Not materially.

8668. Didn't they create the general fund for the first time ?—They created a certain system of account-keeping.

8669. But the appropriation of one item of income to expenditure is merely a matter of accounting ?—Not altogether ; when you look into the history of the matter, I think the two things come together. Say that there is to be a war with Russia, and the income tax is raised ; we put the two things together—the taxes are raised because there is to be a war with Russia. So here, the Commissioners, on the one hand, raised the matriculation fee, and on the other, put on a burden ; and one must say that the one comes out of the other.

8670. One question I noted in regard to the administration of the fund is, how much is spent on the library ?—In the year I spoke of, £706.

8671. The Government grant is a compensation allowance, and is entered as an item of income in the Calendar ?—Yes ; but not in my statement, as we don't keep our accounts in the form given in the Calendar.

8672. You mean that the sum you mention there is over and above compensation allowance ?—Yes, we do not keep our accounts in that way ; but we thought it desirable in our Calendar to state them in the same way as in Edinburgh, so as to be comparable.

8673. *The Chairman.*—Among the general subjects to which the fund is applied, is the maintenance of the museum. Is that the only source from which the museum can be maintained ?—Yes ; in Edinburgh that is paid by Government.

8674. As far as the University can be said to have a museum ?—The Government have taken it and keep it, and relieve the University of the expense.

8675. But you would not wish Government to take your museum from you in the same way ?—No, I don't say I do ; but while Government gives Edinburgh £500 to keep up the buildings, it is a fair thing

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for me to say that Edinburgh is twice or more times as rich as Glasgow, and therefore Government ought to keep up our buildings.

8676. You have some obligations on the fund in connection with the Observatory, have you not?—It is the only source from which the Observatory is kept up. It is not thrown upon the fund by Ordinance; we simply have it there as a burden; and it costs us very nearly £250 a year.

8677. Is it in connection with University teaching?—The head of the Observatory is Professor of Astronomy, and he practically teaches astronomy in the University; but he does not get a large class.

8678. Does he make any use of the Observatory for teaching purposes?—He occasionally takes the students up to assist him.

8679. *The Lord Justice-General*.—Is the interest of your University buildings' debt paid out of the general fund entirely?—No; there is a balance over;—the debt is increasing.

8680. Are you not keeping down the interest?—No; it is a very serious matter; it is by the most cheese-paring contrivances that I am able to keep it down so far.

8681. What is your opinion of raising the class fees?—I think it is time it was done. It is sixty years since the present fees were fixed; and it is quite obvious that the students are far more able to afford them than they used to be. I may mention that when I first came to Glasgow as a professor, it was a constant thing for the students to beg not to be asked to pay the fee for a while, or to have it reduced. That hardly ever happens now with four times as large a class. This year, with the largest class that has ever been, the fees have been more readily paid than before. I am not sure that I have a man in arrear at this moment. In former times there was a number who did not pay at the beginning, and some never paid at all.

8682. *The Chairman*.—When you spoke of what the University Court had done in the way of proposing an increase of the class fees, I understood you to say you did not approve of the proposal?—I did not mean that; but that a considerable number of the professors were doubtful about it.

8683. It was the mode in which it was to be done that you objected to?—Yes; coupling it with another measure.

Adjourned.

MONDAY, 11th December 1876—(Forty-Eighth Day).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman.*

THE LORD JUSTICE-GENERAL.

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

J. CLELAND BURNS, Esq., examined.

8684. *The Chairman.*—You are, I believe, a member of the General Council of Glasgow University?—I am.

8685. And have taken a considerable interest all along in the proceedings of the Council?—Yes; ever since its origin in 1858, I have taken great interest in it, and attended every meeting with the exception of three.

8686. You are Convener of the General Business Committee?—I have been nine years a member of the General Council Committee, and am now convener.

8687. That committee has given in various reports to the General Council?—Yes. With the leave of the Commission, it would bring the subjects consecutively forward, and save the time of the Commissioners, if I were to go over what I have put down in regard to the history of the movement, as regards Glasgow University. The clerk has handed into the Commission, according to a remit of the Glasgow Council, various resolutions, with the numbers voting for and against them, and I will state what part the Council took with regard to the movement. During the last nine years I have taken a prominent part in the discussion of the various subjects brought before the Council, especially with regard to the necessity for the amendment of the Universities Act of 1858. That subject was first formally remitted to the committee of Council, 27th April 1870, on the motion of the Rev. Dr. Bryce, and, about the same time, on the motion of the Rev. Robert Steven, M.A., the subject was remitted to the committee of the Aberdeen Council to consider. For a summary of the proceedings on this subject, see Committee's report for April 1875. The subject has been before every meeting of Council since that day:—1. Constitution and powers of the University Court; and 2. Functions of the General Council. In regard to these questions, I refer the Commissioners to (1) a report which was made by the committee of Council held on 26th April 1871, and (2) to the letter appended to that report by the late Dr. Bannatyne. At the meeting in 1871 other subjects were taken up, but it came to consider the amendment of the Act of 1858 as the most important point. This report was discussed at a meeting of Council, and was generally approved of, and the subject was remitted to the committee for further consideration. This report specially recommended 'that the General Council should have a larger representation in the University Court, and that a more effective voice ought to be secured to it in any changes contemplated in University arrangements; that the Council should have power to hold special meetings when emergencies arise, and that its committee should have power to carry out special instructions from the Council, and be entitled to communicate directly and finally with other Councils. In regard to larger representation in

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the University Court, it was proposed in this report that the Court should consist of nine members,—three connected with the great officers of the University (Chancellor's assessor, Rector, Rector's assessor); three connected with the Senatus (Principal, Dean, assessor of the Senatus); and three connected with the Council (assessors elected by the Council); and that five should be a quorum,—which is the present quorum, the members of the Court being nominally seven, but, inasmuch as the Rector rarely attends, practically six. The Committee of Council made a further report to the meeting held on 1st November 1871, and it was agreed to transmit it so far as relating to the amendment of the Act to the University Court for consideration. The heads of the report then adopted may be generally summarized as follow:—(1) That the General Council ought to have a larger representation in the University Court; (2) that a more effective voice ought to be secured to it in respect of any changes contemplated in University arrangements; (3) that the General Council should have power to hold special meetings when emergencies arise, and to act by its committee to the extent of empowering that committee to carry out its instructions and to communicate directly and officially with the Councils of the other Scottish Universities; (4) that the number of members of the University Court should be enlarged, and consist of nine members, three connected with the great officers, three with the Senatus, and three with the Council; (5) that minutes of the Court, including the sederunt and the votes given at every meeting, should be made public, and that the system of voting for the Rector in Nations should be abolished. The University Court made a report, which was submitted to a meeting of Council held on 24th April 1872. It is the only report which has been given on the subject, and is to the following effect:—‘That the Court approve generally of the representation, and especially in so far as it recommends an increase in the number of the Court, but apprehends that the time has not arrived for asking the Legislature to amend an Act which regulates the whole of the Scottish Universities, and of the operation of which they have as yet had such limited experience.’ It will be observed that the Act had been in operation at this time for fourteen years. I may mention that at this meeting I took occasion to remark that if the deficiencies in the Act were not discovered in the course of fourteen years, they never would be; and that view was concurred in by a considerable number of the Council. The subject was again before the Council at their next meeting on 30th October 1872, when the following motion, which was proposed by me, was made and agreed to:—‘That the committee of the Council be empowered to prepare for the consideration of the Council at next meeting a petition to Parliament to amend the Universities (Scotland) Act in the direction indicated in last year's report.’ A petition was accordingly prepared and submitted at the meeting of Council held on 30th April 1873, when the following motion was made and carried:—‘That the petition to Parliament be adopted, that copies thereof be prepared and signed by the chairman, and sent to both houses of Parliament.’ It is right to mention that an amendment was moved by Mr. James A. Campbell:—‘That the petition be amended to the effect that instead of two additional assessors asked for the Council to the University Court, there should be only one, and the second additional member of the Court should be found in the Lord Provost of Glasgow.’ On that occasion I said I had no objections to the Lord Provost being a member of the Court if he was a member of the Council. Another amendment was moved by the Rev. Mr. Moodie:—‘That the petition should be adopted, with the exception of three clauses

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relating to a larger representation of the Council in the University Court, the publication of the proceedings of that Court, and the mode of election of the Rector.' A third amendment was moved by the Rev. Dr. Pearson (then the Chancellor's assessor):—'That the petition be remitted to the committee for further consideration.' After considerable discussion, Mr. Moodie and Mr. J. A. Campbell withdrew their amendments, and the amendment of Dr. Pearson and the motion proposed by me having been put to the meeting, there voted for the former twenty-two, and for the latter twenty-four. This amendment was for delay only.

8688. There were twenty-two on one side, and twenty-four on the other. Is that the average number who attend the meetings?—For the last few years there have been a very much larger number, but it is exceedingly difficult to speak minutely on that point, because in many cases when a meeting is protracted people leave, and of course the professors make a large number of *ex officio* members of Council. For the last few years, however, owing to special subjects of interest coming up, the meetings in Glasgow have been comparatively large.

8689. *Mr. Campbell.*—Would not sixty be a good meeting?—Yes. We have had more than that, but from sixty to seventy would be a good meeting.

8690. *The Chairman.*—And of how many does the Council consist?—Members all over the country—about 2600, I daresay. In terms of the motion, the petition was presented to Parliament, and at the meeting of Council held on 29th October 1873, it was agreed to without a division that the committee should be authorized to bring the petition under the notice of the present Prime Minister, who was then the Lord Rector of the University, and to respectfully direct his attention to the matters connected with the same. I may mention with regard to this particular motion that the late Mr. Henry Lancaster took a hearty interest with regard to every movement connected with the Scottish Universities, and especially with regard to the amendment of the Act of 1858; and owing to his being called to London to an important meeting on the Endowed Schools Commission, I was requested by him to take up his motion, the motion I have read, that a petition should be presented to the Prime Minister. The subject was again before the Council at its meeting on 29th April 1874, when I moved: 'That this Council is of opinion that the present session of Parliament affords a favourable opportunity of obtaining an Act embodying the amendments of which this Council has already approved on the Scottish Universities Act, and the committee are hereby instructed to take such steps towards accomplishing that object as they may deem advisable, and that copies of this resolution be transmitted to the Lord Rector and the Lord Advocate and the three sister Universities.' An amendment was moved by Professor John Young, M.D., to the following effect:—'That this Council is of opinion that the time has come for the amendment of the Universities (Scotland) Act of 1858; that it is of opinion that requisite *data* for the introduction of satisfactory amendments can only be obtained by means of a Commission of inquiry into the operation of the said Act; and the committee is hereby instructed to take such steps as it may deem advisable to procure the appointment of such a Commission; and that copies of this resolution be forwarded to the Lord Rector, to the members for the Scottish Universities, and to the sister Universities of Scotland.' Professor A. Dickson, M.D., moved as an amendment the previous question. After discussion, the amendment and motion were successively put to the meeting, and the motion was declared carried by a large majority. The committee, acting

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under these instructions, considered it advisable to prepare a draft Bill embodying the proposed amendments which had been approved of by the Council, and they submitted a draft of that Bill to a meeting of Council which was held on 28th October 1874. I may here mention that I took a prominent part in getting the draft of the Bill drawn up, and the motive I had was this, that matters were drifting on somewhat inconclusively. Therefore this was simply bringing it to a point—and showing the important things that might be brought forward, and seeing how it would look on paper, so to speak. I moved that the Council instruct the committee to lay before the Lord Rector and Lord Advocate the draft Bill for the amendment of the Scottish Universities Act contained in the committee's report, with a view to having the same in its present form, or as nearly as may be, passed into law in the ensuing session of Parliament, and to take such steps towards accomplishing that object as they may deem advisable. Professor Ramsay moved as an amendment, 'That the further consideration of the draft Bill be in the meantime delayed, and that the same be transmitted to the University Court, with the view of obtaining the opinion both of the Court and the Senate upon it.' Thereafter, Mr. William Jack moved as another amendment, that the clause in brackets and the clause subjoined be omitted, viz. [5. Where the General Council shall intimate its dissent from any proposition submitted to it under sub-section 2 of section 12 of the first recited Act, such proposition shall not be carried into effect by the University Court until the matter shall be submitted to a subsequent meeting of such Council for reconsideration, and until the University Court shall have taken into consideration any representation which such Council may make at such subsequent meeting.] A clause which had been suggested was subjoined, in the following terms:—'Each person who, by virtue of his office as a member of the University Court of any University, or as a member of the Senatus of any University, has at any time heretofore been, or is at present, or shall at any time hereafter be a member of the General Council of such University, shall continue to be and remain *ad vitam* a member of the General Council thereof, notwithstanding of his having ceased or ceasing to be a member of its University Court or of its Senatus.' I agreed to this amendment, and the motion as so amended and the amendment proposed by Professor Ramsay were put to the meeting, when there voted for the motion thirty-two, for the amendment twenty-three. The committee transmitted a copy of the draft Bill, as approved of by the Council, to the Lord Rector and the Lord Advocate, and the committee subsequently had an interview with the Lord Advocate on the subject. I may mention, with regard to the two clauses, that they are somewhat important. The original Bill, drafted by the University of Glasgow, did not contain these. When the subject came to be taken up by the Councils of the three other Universities, we had, very naturally, in bringing a Bill before Parliament, to give and take, and these clauses were suggested, I forget by whom, but at all events not by Glasgow. Therefore they were quite freely removed, and you will now see the position in which the Glasgow Bill stands. The fifth clause proposed to give powers which I, for one, would never wish to see any of the Councils have, namely, a kind of veto to bring a subject back from the Court to the Council. Whatever views I may have with regard to the increase of the Council, I would never wish to see a sort of battledore and shuttlecock between the Court and the Council. The other clause was of a more simple nature; but I do not think the Glasgow Council attached much importance to it.

8691. You do not approve of a suspensory power being given to the

Council?—No, because it would give a temporary veto to the Council, which I object to. I wish the Council to take as great a part as possible in academical deliberations, but simply to express their mind, and let the Upper House—the Court—take advantage of their advice.

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8692. Then you don't think that a large body like the General Council is suitable for executive purposes?—Certainly not. At the meeting of Council held on 28th April 1875, I moved, 'That the subject of the amendment of the Scottish Universities Act of 1858 having been under the consideration of this Council and its committee since the year 1870, and this Council having repeatedly expressed its opinion as to the amendments considered necessary and advisable, and being fully convinced in the interests of the Councils of the Universities the matter should be taken up by Parliament without further delay, and seeing that the subject is under the consideration of Her Majesty's Government, instruct the committee to communicate again with the Lord Rector and the Lord Advocate, with the view of having the question dealt with this session either by the introduction into Parliament of the Bill already approved of by this Council, or, if further and other amendments are considered necessary, by the issuing of a Royal Commission, and to take such other steps as they may deem advisable.' After a long discussion the motion was ultimately amended as follows, and unanimously agreed to:—'That the subject of the amendment of the Scottish Universities Act of 1859 having been under the consideration of this Council and its committees since the year 1870, and this Council being fully convinced that in the interests of the Councils of the Universities the matter should be taken up without delay, resolves to thank the committee for their past diligence in this matter, and instructs them to take what steps may be necessary for securing the concurrence of the other University Councils in an application to Government for the issuing of a University Commission, and to report to next meeting of Council.' In terms of the instructions of the last meeting, a deputation from the committees of the General Councils of the Universities of Glasgow, St. Andrews, and Aberdeen, was held in Edinburgh, in May 1875, when a memorial praying for the appointment of a Royal Commission was prepared, and a deputation was appointed to present it to the Lord Advocate and Home Secretary, and the result has been the issuing of the Royal Commission. This now brings me on to the draft Bill itself.

8693. Do you personally adhere to the opinion expressed in these proceedings you have read to us in regard to the increase of the representatives of the Council in the Court?—Certainly. I am to speak in regard to that; but if you will allow me, I shall first go over, and that shortly, the clauses of the draft Bill; and that will enable me to give my views consecutively. From the short history of the movement since 1870 which I have read, it will be apparent to the Commissioners that there has been no diversity of opinion whatever with regard to the absolute necessity of the amendment of the University Act of 1858. I think it right to mention that, because, when I came here, I came to give my own individual opinions. I have no right to express the opinions of the Council; but with reference to these resolutions, in no case will it be found that there has been a decision adverse to amending the Act. I shall now be glad to go over, shortly, the points of the draft Bill, which, as stated before, is founded substantially upon the first report of the Council, and which may be said to comprehend all the debateable points with regard to University amendment. With regard to the preamble of the Bill—'Whereas it is expedient to enlarge and extend the powers and privileges conferred on the General Councils of the several Universities,' etc.—I unhesitatingly state that without an enlargement and extension of the powers and

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privileges conferred on the General Councils of the several Universities, these Councils will simply exist on paper, and for the election of members of Parliament, which, although a most important function, is not the original intention of the constitution of the Council. One of the most important causes of the decline in interest in Council meetings has been to my mind the absurd restriction of power to the Council, or Convocation, or Congregation, or whatever other name it may be called, it having no power to call a special meeting or to adjourn, and having merely a statutory power to meet twice a year to take into consideration all questions affecting the well-being and prosperity of the University, and to make representations from time to time on such questions to the University Court, who shall consider the same and return to the Court their deliverances thereon. In regard to the first clause in the draft Bill, the defect which it seeks to remedy was alluded to very early. It appears from the minute-book of the General Council of the University, that, at the first meeting held in October 1859, the power of the Council to adjourn was discussed; and at the meeting held in 1860, the late Dr. Andrew Bannatyne, who was assessor of the Council, read to the meeting the correspondence which had taken place between him and the secretary of the Commissioners on the subject, from which it appeared that the Council had no power to adjourn meetings from day to day, but that the suspension of the proceedings of the meeting from one hour to a later hour of the day was within the power of the General Council.

8694. Was the correspondence intended to clear up some doubt entertained as to the intention of the Ordinance?—Yes; it was understood at the time to show that it would be very difficult to conduct business unless the Council had the power to adjourn.

8695. Has it practically been found impossible or difficult to finish business at meetings, and was the object of the correspondence to show how desirable an adjournment would be?—As far as my experience goes, especially in regard to large meetings, if they extend beyond a certain time you cannot get people to remain.

8696. Do you think they would return next day or at some future time?—My opinion is that every meeting—no matter what it is—ought to have power to adjourn. I have twice put down a motion with regard to this very question. I find that it requires no extra legislative authority to enable the Council to adjourn. It is simply a matter of Ordinance. And what I put down on two occasions was this:—‘That inasmuch as it is sometimes found impossible for the General Council adequately to discuss the matters brought before it, or to arrive at a vote thereon, owing to the limited time allowed for each meeting by section 2 of Ordinance No. 11 made by the Commissioners (which forbids the adjournment of a meeting to the following or any subsequent day), and inasmuch as by section 19 of the Scottish Universities Act 1858, the University Court has power, with the consent of the Chancellor, and with the approval of Her Majesty in Council, to alter or revoke any Ordinance made by the Commissioners, the General Council requests the University Court to alter section 2 of Ordinance No. 11, by omitting from that section the word “not,” and by substituting in the same section the word “and” for the word “but,” and to submit such alteration to the Chancellor for his consent, and to Her Majesty in Council for her approval.’ Section 2 of Ordinance No. 11 is as follows:—‘It shall *not* be in the power of the General Council to adjourn its meetings from either of the stated annual days of meeting to a future day, *but* it shall be in the power of any meeting to suspend its proceedings from one hour to a later hour of the same day.’ I proposed that it shall be in the power of the

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General Council to adjourn its meetings from the stated annual meeting to a future day, or to suspend its proceedings from one hour to a later hour in the day. That was lost by the casting vote of the Principal. I brought it forward at another time, I think at the last meeting; but I withdrew my motion because the Commission had been granted. Now, with regard to your question as to whether members of Council would come back, I quite agree that it would be very doubtful if they would; but the point I had in view in bringing forward this subject—and when it was not certain that there would be legislation on it—was this, that sometimes important questions come up at the Council's meetings, and it is highly important that the Council should adequately discuss them.

8697. But if you think it is not probable that certain members would return to the meetings, do you believe that any such power of adjournment as you indicate would secure adequate discussion?—Yes; and I will illustrate this by a case in point. In April last, I called the attention of the Council, by means of a motion, to the subject of Indian Civil Service Appointments, and moved 'That it be represented to the University Court to consider the effect upon the Scottish Universities of the provisions in the despatch by the Secretary of State for India, of date 24th February 1874, to the effect that the maximum age of candidates for Civil Service appointments be fixed at nineteen, and that the allowance of £150 a year be given only to students at Universities where more than intra-mural responsibility is undertaken for their conduct.' No one will doubt the importance of this subject. The Council were powerless to discuss the matter further until other six months had elapsed, and even then they could do nothing more than make another representation to the University Court. The subject was again taken up at last meeting, in November 1876, and another representation made; but what I wish to illustrate is this, that in the event of any changes such as this referred to, the Council are powerless during the interval to take any steps whatever, owing to the defect alluded to, and thus I hold the Court itself is not enabled on vital questions such as this to get the support of this most important component part of the University.

8698. You agree with me, do you not, that those members who go away one day are not likely to return the next?—That is very possible. I am very strong, however, in my opinion of the other part of the clause—the absolute necessity of giving the Council power to call special meetings.

8699. *Mr. Campbell.*—Country members who come to attend meetings on one day could hardly be expected to come back the next. Would not the power of adjournment tend to throw the business of the Council into the hands of Glasgow men exclusively?—I don't think so. I think there is an undue jealousy with regard to the interference of the Council.

8700. Do you think the country members would like the idea of the town members of Council having, as it were, a greater privilege open to them than would be conveniently open to the country members?—We cannot possibly help that. A member may live in Paisley, Dumbarton, or Crieff, but it is impossible to look to that. What I look to is the importance of making the Council give adequate expression of opinion and keep up its interest in its affairs. I think every meeting should have the power of adjournment; and I understand it has been ruled by the legal authorities that every meeting has power to adjourn. I speak with deference, but it seems to me to be common sense to think that a meeting should have power to adjourn; and that was a point which, if I mistake not, the opinion of the first assessor, the late Dr. Andrew Bannatyne, was strong upon, and his opinion always carries weight.

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8701. *The Chairman.*—But you personally do not hold a strong opinion on that?—I hold that every meeting ought to have power to adjourn.

8702. If those members who left the meetings did not return, would not that throw the decision of the question into the hands of those resident in the University town?—The question in my mind is simply, what legislation of this sort would be the best thing for the Council as an important component part of the University? I have had a very accurate statement drawn up with regard to the number of the members of Council in Glasgow and neighbourhood, classified under professions, and the number resident in Glasgow and neighbourhood I find to be 895.

8703. And of that number from seventy to ninety generally attend the meetings?—Yes. The classification is as follows:—

Professors,	.	.	.	.	.	.	26
Clergymen,	.	.	.	.	.	.	278
Lawyers,	.	.	.	.	.	.	117
M.D.'s,	.	.	.	.	.	.	249
Teachers, etc.,	.	.	.	.	.	.	111
Merchants,	.	.	.	.	.	.	112

I cannot concur with what has been said with regard to the inutility of adjournment. If an important question comes up, I don't see why power should not be given to the Council to adjourn to a future date, especially looking to the large number resident in Glasgow and neighbourhood. Those who feel strongly would surely come in to the discussions of the questions; the interest in such meetings would surely be as great as in the statutory meetings twice a year.

8704. *Mr. Campbell.*—Before leaving the question of adjournment, in view of the fact that a large proportion of the members of the University Council live at a distance from Glasgow, and may be supposed to have the same interest in the meetings as the Glasgow members, is there not a certain principle in their having the assurance that the business to be transacted at the meeting is to be transacted on the stated day, and not on some adjourned day, and in there being no power of adjournment, so that all the members are placed on the same footing?—I do not see that at all, because I should make the Council be like other Councils; the members must take their chance of the business. There are hundreds and hundreds of members in Ireland, and a very large number who never come at all. There is also a considerable number in London. I will not dispute your view that perhaps that matter might be considered; but we have to look to the general principle, and I cannot see why the University Council should be made different from any other Council.

8705. *The Chairman.*—Are there not other public bodies whose meetings are limited to a certain day, and who have no power to lengthen the time over which their deliberations are to extend? Is that not the case with regard to the General Assembly of the Church of Scotland?—It can sit more than one day.

8706. But it cannot sit beyond a certain fixed time?—That is quite true. Still it seems to me an unexampled thing that the Council should have important powers of deliberation, and at the same time have its wings clipped in such a way that it cannot adjourn.

8707. Has the Council ever failed to overtake work put down on the programme?—That is a difficult question to answer; because, owing to the

perfunctory style of conducting business, and the meetings being statutory meetings twice a year, little interest is felt; and if it had not been for a number like myself, who are earnest to get the Act amended, the meetings would, I believe, have been nowhere.

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8708. Do you think that a man who would not come to one meeting, would be more likely to come if it was to extend over two days?—It would not be certain to extend over two days. But, then, the Act does not give us the opportunity of discussing any important question adequately. The deficiency of power to call a special meeting obviously causes embarrassment. Both in the case of the election of Chancellor, and in the case of the death of an assessor of Council, their places cannot be filled up till the next meeting of Council. With regard also to subjects of general interest to the University, in recent experience several most important subjects have come before the Council, which, owing to this defect, could not be taken up. Without multiplying illustrations, I would allude to two subjects which have recently come before Parliament. With regard to the functions of the Council as impaired by this defect, the Council is 'ordered to take into consideration all questions affecting the well-being of the University, and the Court is to give a deliverance thereon.' But how is this possible?—it is a regular block system. As an instance, to show how a special meeting might prevent great evil being done, at the April meeting, 1875, I brought forward the subject of the graduation of women by the Scotch Universities. A Bill was brought into Parliament in two years consecutively, called a Bill 'to remove doubts as to the powers of the Universities of Scotland to admit women as students, and to grant degrees to women.' The Bill was brought in by Mr. Cowper Temple, Mr. Russell Gurney, Mr. A. Orr Ewing, and Dr. Cameron. I gave notice of this motion: 'To ask the assessor for the General Council in the University Court whether the Court acted in any way, or expressed any opinion respecting the introduction into the House of Commons in the last and present sessions of Parliament of a Bill entitled "A Bill to remove doubts as to the powers of the Universities of Scotland to admit women as students, and to grant degrees to women," and bearing to have been prepared and brought in by Mr. A. Orr Ewing, M.P. (Dean of Faculties), together with three other members of Parliament, and if so, what was the action taken or opinion expressed by the Court respecting such Bill, and what reasons prevented the Court from communicating upon the matter with the General Council, and giving the Council an opportunity of stating its views and wishes with respect to such Bill.' I put the question, and remarked that I would not have brought up this question, had the Bill referred to not been backed up by the name of Mr. Orr Ewing. Seeing that it sought to make a radical change in the University, and that no expression of opinion had been given on it by the Council, I thought it right to introduce the matter. Professor Veitch submitted that the question was entirely incompetent, and said it seemed an indirect attempt to find out what was done at the University Court, and no member of Council had any right to put such a question. Principal Caird remarked that there were certain statutory methods of communication between the Council and the University Court, but to put a question to the assessor in this way was most assuredly not one of them. He was afraid he must rule the question incompetent. I said I would like to know what means the Council had of getting information unless through the assessor. Principal Caird answered that they had by the Act the means of direct representation to the Court, and after due deliberation the

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Court would return its decision to the Council. Now, I say, many other questions of equal importance might have come up; but here was a subject which undoubtedly sought to make a most radical change in the Scottish Universities. I did not mean or wish to express any opinion as to the names on the back of the Bill, but, without consultation with any one, noticing Mr. A. Orr Ewing's name there, he being Dean of Faculty and one of the assessors of the University Court, it was a natural question to ask whether the Senate or the Court had expressed any opinion on the Bill. There was much diversity of opinion on the question in the college itself. To come back now to this point, as an illustration of the necessity for the power of adjournment and of calling special meetings, I cannot help expressing my opinion that if these powers had existed a special meeting would have been called for the discussion of that Bill. It came before Parliament two years running, and any one reading the papers might notice that it was 'on the cards,' so to speak, that the Bill might have passed without any expression of opinion. Then, in regard to the point which is coming up prominently just now,—the question of Indian Civil Service examinations,—I put down a motion in regard to that in April last; and the correspondence can be seen which took place between the Secretary of State for India and the Court. At the last meeting of Council the motion on that subject was renewed by Professor Veitch, who spoke very strongly on the subject. We might well take that subject for illustration. No one can doubt that the subject is a very important one for the Scottish Universities. It will simply prevent them from having the fair field for their students entering the Civil Service of India that they had before. I may mention that what called my attention to the subject was an admirable article in the *Scotsman*, and I happened to be in time to give my notice of motion for the statutory meeting. But supposing that no one had noticed the subject in time for that meeting, nothing could have been done in the matter. I had no doubt that the Court would immediately take up the matter; but still I felt that, as being a component part of the University, the help of the Council should be obtained. I have given a case in which it might have been impossible to do anything. I can hardly imagine that any such resolution will be passed by the Secretary of State for India; still, I think it is necessary that the Council should have the opportunity to express what they think of such measures. It will be noticed that the Bill requires that a special meeting should be called by thirty members. That clause was fully discussed by the Councils of the four Scottish Universities, and all were agreed upon it. There is another illustration of this matter equally strong. We lately had a vacancy in the Chancellorship, and the vacancy happened about two months before the statutory meeting; but it is quite a probable case that inconvenience might have happened by the great delay arising from the six-monthly meetings. The same thing applies with regard to the assessor. If the assessor of the Council dies a day after the statutory meeting, another cannot be elected in his place until the next meeting, six months afterwards. And if the powers of the Council are enlarged by more assessors being given, the argument would tell even more strongly.

8709. But if you had three, all of them would not be likely to die at the same time?—Still it is possible, and certainly more than one vacancy might occur between meetings. At all events, special meetings would facilitate the consideration of subjects affecting the general interests of the University. I do not for one moment wish to say a word disrespect-

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ful about the Court, but it was alleged at one meeting of Council that when I went before the Home Secretary I had said that the Council had done its duty, but the Court had not. If that was stated, it was not my meaning; what I meant and mean is, that the Court cannot be expected to wait on us, so to speak, or take a deep interest in questions arising before the Council, considering that they lie over for six months at a time, and, as has been over and over again said, the Council themselves become wearied. Nine years is a very long time to work towards the amendment of an Act; but if the Councils had power to call special meetings, this and such matters would be brought to a point one way or another; and I don't think there would be any fear of injuriously affecting the interests of the University.

8710. Do you think that at these special meetings the attendance would be larger and greater interest would be taken than at the ordinary statutory meetings, just from the subject being special and specially interesting?—Yes. A large number are not able to attend. The Wednesday in the last week of April, and the Wednesday in the last week of October, are rather awkward days for holding the statutory meetings, because there are so many other statutory meetings at the same time. I have often felt this inconvenience myself when special subjects of interest were coming up. I would be far from wishing a change for change's sake. With the fear commonly expressed, of bringing in the popular element to bear on the Court, I have no sympathy; indeed, a 'popular element' in academical affairs is a sort of misnomer. My wish is to increase the interest of the Council in University affairs; and if only the Council had power to call such meetings, I have no fear whatever of what would follow—in Glasgow especially, where, by the figures I have shown you, there are something like 900 members in and around it. There is, therefore, no fear of any harm being done to the University.

8711. Do you think there would be any advantage with regard to the proceedings, either at the statutory meetings or the special meetings you desiderate, in voting by voting-papers, in the same way as at contested elections, so that absent members may have an opportunity of expressing their opinions?—I wish first, if you will allow me, to say that, with regard to the General Council as a body, I felt, and many felt, at its origin, that it was simply a revival of the old lines of the constitution of the Scottish Universities. Some years ago I happened to make an extract, which is somewhat interesting, from Dr. Thomas Reid's *Statistical Account of the University of Glasgow*. In an editorial note by Sir William Hamilton it is stated, 'The college is not the University, though they are now so confusedly mixed up together. As to the right of the graduates at large to constitute the University, and to ratify its laws, this was recognised in Glasgow so late as the year 1727, when, as I remember noticing in the academical records which I had occasion some years ago to examine, it was found necessary in conformity to principle and practice (not then forgotten) to summon a congregation of graduates, in order to legalize the statutes proposed by the visitation of that date.' I mention this to show that as regards the views I have held for years, my aim has been to keep up the interest and old associations of the graduates. No doubt the position of graduates now must naturally be very different to what it was hundreds of years ago; and all I want to see is a real intelligent interest taken by those associated with the University in its affairs.

8712. Then have you any objection to the voting being conducted by voting-papers?—There is a serious objection on the score of expense. When the question of calling special meetings came before the committees

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of the four University Councils in Edinburgh, this question was considered at length; and that is the reason why it is said in the first clause that notice of those meetings shall be advertised three separate times in the various newspapers throughout Scotland, and twice at least in the *Times*.

8718. *Mr. Campbell*.—If there was voting by voting-papers, there would be no profiting by the discussion?—Certainly; but apart from this, I would not approve of voting-papers on account of the expense.

8714. You make it a condition of holding the special meeting that a requisition be signed by thirty members. Is that sufficient protection against a meeting being called quite unnecessarily?—I think so.

8715. Would you not add a stipulation that it should receive the sanction or approval of the Chancellor?—I would object to that entirely, because the Chancellor is our chairman by virtue of his office, and he represents us. Would it not be a novel thing to enact that it was by the leave of your chairman that a special meeting was called?

8716. *The Chairman*.—Are there not more important functions he discharges than that of sanctioning the holding of special meetings?—The Chancellor is the chairman, and it is unusual to ask the sanction of the chairman to call a meeting.

8717. Nevertheless, there are many matters of great importance to the University, are there not, which cannot be carried through without his sanction?—But there is the important difference, that in this case the Council is simply a deliberative and not an executive body. The Chancellor has got the veto on what may be called action;—the Council only deliberates.

8718. One of the modes of summoning special meetings you suggest in your draft Bill is by letters posted to every member of the General Council residing in the United Kingdom. Would not the objection of expense apply to that?—You will notice that that is an alternative. I have a strong feeling against it on the ground of expense.

8719. *Mr. Campbell*.—You would not propose that the requisitionists should bear the expense?—Certainly not. Why should individuals bear the expense of meetings under legislative sanction?

8720. *The Chairman*.—With regard to the second clause—the power to petition; is not that a power which the General Council have exercised?—Yes, frequently; and I may say that this clause is put in simply to satisfy what the Lord President ruled—that we had power to petition.

8721. You propose not only that the General Council should have power to petition Parliament, but power to approach Her Majesty in Council. Is not the power to do that rather an executive power—a power which naturally belongs to some body having the administration of the University? and do you not see that this is by far the most important alteration you or anybody has suggested, and an entire alteration in the constitution of the University, to give the Council the power to apply direct to the Queen in Council, passing by the Court through which any such petition must be made?—We have power to petition both Houses of Parliament.

8722. Is that not very different from petitioning the Queen in Council?—You will observe that this clause is put in first to see how far we should go.

8723. Don't you now consider it doubtful whether you have not gone a little too far?—I am not sufficiently aware. We thought that possibly a subject might arise on which we might think it necessary to petition the Queen in Council. My idea was that it might be well in the draft Bill to insert such a clause, unless some good reason could be shown that the effect of it would be injurious.

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8724. Are you not aware that the only kind of subjects on which any of the University authorities can approach the Queen in Council are alterations of Ordinances?—Yes.

8725. Are you prepared to say you think it advisable for the General Council, which, you have said, is not a suitable body for executive purposes, to apply for an alteration of Ordinances, instead of leaving that to be done on a representation from them by the Court, if the Court think it right to do so?—I confess that I have not a strong feeling on the subject, more especially if the Court were enlarged and embraced more representatives from the Council; but it is to be observed that the clause contains the proviso that the General Council must have the consent of the Court to petition. With regard to the increase of the members of the Court, I have a strong opinion that in Glasgow we ought to have two more representatives elected by the Council. That opinion is founded on these reasons. The Court now consists of seven members; practically of six, the quorum being five. No doubt the quorum might be altered; it is very large for six. Apart from this, however, I hold on principle that six is too small a number, considering that the whole government of the University has devolved on the Court, and that it possesses legislative powers which were originally conferred on the Commissioners.

8726. These powers being exercised with the concurrence of the Queen in Council?—Yes; but practically the Court is the governing power throughout. Another reason for holding my opinion on the matter has reference to the patronage of the professors. On this subject I speak for myself and perfectly openly. I have no knowledge, since the Act was established, that there has been the slightest abuse of patronage. I believe conscientiously that the patronage of the University of Glasgow—which is the only one of which I am entitled to speak—has been conscientiously exercised. At the same time, I am very strongly of opinion that an enlargement of the Court and an increase of the representatives from the Council would have a very important and beneficial effect upon the Court. Seeing that there is a large number of men in the neighbourhood of Glasgow who have still the academical feeling with regard to the University, and who are able and willing to go into the Council, and thereafter, if elected, into the Court, I would certainly say that an enlargement of the Court and an increase of the Council's representatives would have a beneficial effect. Then, speaking on a matter of figures, I have heard it alleged frequently, and I believe it is true, that professors have been, or at all events might be, elected as the nominee of one. And you can easily see that, if there were three candidates, in so small a body as six men, one candidate might be elected as the nominee of one member. I think, upon the whole, that nine is a better body than six. There are nine chairs subject to the patronage of the Court now. I may say, by the way, that though I express individual opinions on this matter, there has been unanimity of opinion amongst the four University Councils as regards enlargement of the Courts. It is not my wish to have power for the sake of power that makes me think the Council ought to have two more representatives; but the conviction that by giving the Council that increased representation you would bring about a much increased academical interest in it, and thereby in the Court—which would be for the advantage of both.

8727. It has been suggested by some witnesses who hold the same view as yours that the Council should have three representatives, and that in that case it might be made a three-cornered constituency, the minority nominating one of the three, and each member being able to vote for two;

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would you approve of that?—No, I don't think I would; I think academical affairs are quite different from political.

8728. You think the majority should have the election?—Yes.

8729. *Mr. Campbell.*—Not giving the doctors a chance of one man?—I think it is well to keep aside all sections, interests, and politics in academical matters.

8730. *Dr. Muir.*—Don't you think that the creation of a three-cornered constituency might lead to ecclesiastical interests being more fairly represented? or is there a preponderance of ecclesiastical power in the Council, according to your opinion?—I think there is, undoubtedly. There must be, because, as a rule, in former days especially, degrees were not so often taken by non-professional men.

8731. I don't mean ecclesiastical as opposed to other interests, but ecclesiastical interests *inter se*?—No doubt there is.

8732. *Mr. Campbell.*—Is it not the case that in Glasgow there has been very little manifestation of party spirit in the ordinary business of the General Council, if any at all?—Very little indeed. But with regard to a three-cornered constituency, as a matter of machinery, I could hardly express any opinion.

8733. *Mr. Campbell.*—In one of your minutes there is a notice of my proposing an amendment that the Lord Provost should be proposed as a member. Are you aware that that was a suggestion of Principal Barclay's—his idea being that there should be a representative of the city in the Court?—Yes.

8734. There was a strong objection taken to that proposal by several members of the Council, because they did not like the idea of any one in office unconnected with the University being put in officially. Do you think the same objection would hold in regard to a nominee of the Lord Provost or magistrates?—I do.

8735. *The Chairman.*—Even if the nomination was confined to the General Council?—Yes. I think the great thing is to increase the feeling of interest with regard to the academical part of the University. There have been Lord Provosts, and there may be again Lord Provosts, members of the University; and there should be no opening into the Council except through the University. In Edinburgh, no doubt, what you refer to has existed from time immemorial; but in creating new offices it would be exceedingly unwise to alter the lines of the Glasgow University.

8736. Have you anything to say with regard to the next point—the publication of the proceedings of the University Court?—I think that since the subject came up before the various Councils during the last few years, and since the Bill was drafted, the proceedings of the Court have been printed more fully than usual in the Calendars; but in any new legislation it would do the Court no harm to provide that their minutes be published.

8737. *Mr. Campbell.*—You do not, I understand, complain of the abstract of the proceedings which is printed now, but of its not being made imperative?—Yes. I never heard of any evil which could be alleged as a reason why the proceedings should not be printed.

8738. *The Chairman.*—May not matters often come before the Court which it would not be desirable to publish?—I think they should have some discretion.

8739. *Mr. Campbell.*—The 'full and correct report' is limited to the powers of the Court under special sections. What are these?—Sub-sections 1 and 2 of section 12 and section 19; that is, when the Court reviews the decisions of the *Senatus Academicus*, and proposes to effect improvements. The point was very fully discussed.

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8740. *The Chairman*.—In point of fact, then, your Council has not asked that the whole proceedings of the Court should be published?—No. We left out inquiries in regard to professors, and only asked for things that might conveniently come before the public. I approve generally of the fourth clause, however.

8741. In regard to the fifth clause—the election of Rector—you propose that the Edinburgh system should be adopted, of the students voting *in cumulo* instead of in Nations?—Yes; but I would object personally to that clause, which is one of those put in at first to get unanimity in general matters as regards the draft Bill. Many who were engaged in drafting the Bill, and who attended the committee meetings, had less strong opinions than others on this point. I am one of those.

8742. You therefore approve of adhering to the present mode of election by the students?—Yes. The only alteration I would approve of is dividing the Nations into five instead of four.

8743. How would you constitute the fifth?—One of the Nations might be divided; but I prefer leaving the Lord Rector to be elected as he has always been.

8744. Does any disadvantage result from the Nations being equally divided, and a casting vote being exercised, which is frequently the case?—No doubt inconvenience has resulted on several occasions.

8745. But you don't think it so great as to recommend a new mode of voting?—No. Although there has been some inconvenience with regard to the present system of election, yet I would be exceedingly chary of making any change on the old-established custom.

8746. Suppose you adhere to the present mode, would it not be important that, if an equality of Nations resulted, the number of individual votes be reckoned, instead of referring the decision to the casting vote?—Yes; I think that might be an improvement.

8747. *Mr. Campbell*.—You mentioned that one of the objects you were wishful to attain was that the General Council should have a more effective voice in any changes in the University affairs. At the same time you do not propose any veto on the changes passed by the Court. Now, is there anything else you would suggest in the way of defining how a more effective voice should be given to the Council than merely discussing subjects at meetings?—Nothing more than that an effective voice should be given by the appointment of two additional assessors, and the power of adjournment and of calling special meetings. I have always maintained that by giving these additional assessors you at once increase public interest in regard to the Council; you give them more power; and it is in this case a power which could not be used detrimentally to the best interests of the University.

8748. Have you any opinions to express regarding the expediency of instituting any new degrees, or of restoring any degrees that used to exist?—I am generally in favour of establishing a B.A. degree giving the franchise, because I believe that many who are not going into professions, such as schoolmasters and others, and even laymen, would be enabled to take the B.A. degree, which is not so difficult a degree as M.A.; and since the electoral franchise has been conferred on the General Council, an additional element is that, if the power of the Council is increased, many may be induced to remain a year longer at college, and take the B.A. degree, and thus keep up the members of the Council, which certainly in time will lapse into a very small number, because it is not the habit of the Scotch to take degrees except for professional purposes. Although I have no power to give an expression of the opinion of the Glasgow Council, yet if the Commissioners go over the reports and reso-

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lutions for a great many years, it will be found that there has been a very strong feeling in regard to the re-institution of the B.A. degree. At all the meetings at which I have been present for eight or nine years the feeling has been in favour of the re-institution of this degree.

8749. What curriculum would you require for it?—I am not prepared to go into details. I am not aware how it was abolished; chiefly, I think, because it was thought English people might misunderstand B.A. for M.A. Now, B.A. would in Scotland be thoroughly well understood to be inferior to M.A. In England, the getting the M.A. is merely the payment of fees after a lapse of time. And if that was the reason for abolishing the B.A. degree, I confess I have not much sympathy with it.

8750. Don't you see a little awkwardness in the same designation of B.A. existing in England and Scotland representing wide divergences in regard to merits and attainments?—My feeling is that in course of time that would be understood.

8751. That would just increase the evil, would it not, having a number of men in Scotland with an academical title after their names, which would indicate a far lower amount of proficiency than the same title would indicate in the larger division of the country?—But then they are B.A. Oxon., and B.A. Cantab. However, I would say, in general terms, that there is a feeling that it should be revived. I doubt the expediency of instituting a B.Sc. degree.

8752. *Mr. Campbell.*—But you think there should be some degree more easily attainable than that of M.A.?—Yes.

8753. Would you allow that degree to carry the franchise with it, or make the holder a member of Council?—I would, for the reasons I have already given.

8754. *The Chairman.*—But if you are to invest the Bachelor of Arts degree with extensive academic powers, you must tell us what curriculum you would expect the student to go through to acquire his degree?—As far as I understand it, the B.A. could be passed in three years.

8755. Can the M.A. degree not be taken in three years with a certain amount of preparation?—Yes; but still the B.A. has not so many subjects as the M.A. There is a large class of men, such as teachers and others, who might not be able to take the M.A. degree, and who regret leaving the University without a degree. The B.A. degree would give them that advantage.

8756. Do you think the existence of a B.A. degree would have any effect in inducing men to be content with it, and not go on to take the higher degree?—On the contrary, I think the B.A. would lead many on to the higher degree. But some may not be able to go so far; and it would be a pity they should not be able to take a degree, showing a fair amount of study, before leaving the University.

8757. Has not the number of those who take the M.A. degree largely increased since the B.A. was abolished?—I am not aware that it has.

8758. What is your opinion as regards the expediency of introducing entrance examinations?—Although my opinion is strong against the cramming system, my feeling is that we must either have entrance examinations carried on by the Universities, or something in the shape of 'leaving' examinations at the schools and other institutions. While I approve of entrance examinations as being probably a necessity, I would certainly disapprove of anything which would alter the old lines of the Scottish Universities, which enabled a young man to pass from a parish school straight to the University; also, of any entrance examina-

tions which could prevent a large class of persons getting into the University who might afterwards work up.

8759. What would you say to what others have recommended, that there should be no such entrance examination as would shut the door of admission against any one, but that there should be an examination at the end of the first year for those who have come without examination, before going from the first to the second class?—I would strongly prefer that, upon the simple ground of keeping up the old system of the Scotch Universities.

8760. And when you spoke of an alternative examination at the door of the University or before leaving school, did you consider whether the present condition of the schools is such as to afford facilities for that? Is the state of secondary education or higher-class education in elementary schools such that you would, in a great number of cases, require an examination before leaving school which would qualify for admission to the University?—I don't think it is at present. The subject has been over and over again before the committees of the Glasgow Council, and, individually, I feel great diffidence in asserting a strong opinion upon it.

8761. Has the subject of the length of session been under your individual consideration, or of the committees with which you are connected?—In regard to this subject there has been from the very earliest meetings of the Council, and continuously to this date, a strong expression of opinion, which will be found in their reports; but I confess that I would not be prepared to go in rashly for the adoption of summer curriculum classes; but I have, nevertheless, had means of knowing that there is a considerable feeling and desire that the advantages of the University should be extended in some way or other, and it has been suggested to me that it is a possible thing that evening classes may be instituted, as a considerable number of men now in Glasgow could not attend the morning classes of the University, owing to its distance, and also to other reasons; and also, if a sufficient number of young men could be got to attend evening classes, it might be a consideration whether such classes taught by professors or assistants intra-murally might not be allowed to count for a degree. As a merchant, I may say there is a feeling among the class with reference to the education of their sons; and the chief complaint is that for six months during summer they do not know what to do with them. But, on the other hand, it is alleged that a large number of those who go to college are most profitably employed during the other six months either in working up for the studies of next year or in other occupations. This subject has come up very frequently before the Council of Glasgow University, and, fourteen years ago, the following resolution was unanimously adopted:—‘That with a view to meet and remedy the grave inconveniences which result to many students from the long and continuous vacation of six or seven months, it is desirable to consider whether it might not be expedient and practicable to have either two distinct sessions of four months each in the course of the year, or one extended session of seven or eight months, intermitted by a short vacation about the middle of the term. It is the opinion of the committee that by one or other of these arrangements not only would the time of the students be better economized and turned to much better account than is possible by means of separate summer classes, but that the unity and harmony of the whole University system would thereby be more effectually preserved, while greater and more rapid progress would be made by the students generally in the work of their education.’ My own feeling, however, is, that if you alter the system of the Scotch Universities, you alter the whole system of professorial teaching, and that that might lead to

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very detrimental consequences. Therefore I am not prepared to go in strongly for summer sessions; but I would indicate, although I do this with very great diffidence, that it might be considered whether or not some arrangement might be made by which a vast number of young men in Glasgow might be taught in evening classes.

8762. You could only expect them to be taught by assistants?—Yes; but under the jurisdiction of the University. I think the allegation made many years ago, with regard to the decrease in the numbers attending the University, is unfounded. The numbers are increasing. I sympathize, to some extent, with those who desire to have the six months' vacation. But we must look to the greatest amount of good which can be performed by our Universities.

8763. Those who advocated summer sessions have not had opportunities of examining statistics in regard to the average number or proportion of Arts students who work in vacation, and could not possibly attend in summer sessions?—Not so far as I know.

8764. With regard to evening classes, have you considered whether they should be reckoned as part of the curriculum?—I would hardly go that length, although I think the suggestion worthy of consideration.

8765. You do not require legislation, if it is not to work as part of the curriculum? Would there be any difficulty in holding evening classes by the assistants if they were to be numerous attended?—I don't think that would altogether meet the wants or wishes of a large class. The desire is to have University education and a degree, or some test of merit.

8766. How would you meet the wants or wishes of those to whom you have alluded?—I would meet them so far by local examinations.

8767. Such examinations as the Universities are now encouraging?—Yes.

8768. By teaching outside the University, do you mean such as would qualify for degrees?—That has been the case in the Medical Faculties; but what I refer to is teaching by University rules outside the University. I have here a paper from six Educational Associations who say that local examinations would be direct feeders of the University, and that a large number of young men in Glasgow who will pass the local examinations will go on to the University. In connection with one society, the Glasgow Young Men's Society for Religious Improvement, there are 1000 under tuition—taught by graduates of Scotch Universities. Professor Douglas is one of the teachers; as are also Mr. M'Hardy of Aberdeen University, Mr. Simpson, C.E., Mr. David Forsyth, M.A., etc.

8769. But, so far as we are concerned, these associations you refer to are feeders of the University just in the same way as public schools are?—This has a bearing on the subject, however, in this way, that it shows there is a desire to have an extension of University teaching; and the question is, How is it to be brought about? I doubt much whether extra-mural teaching is advisable. But the desire being felt by a large class of young men, is it not wise to consider how the desire can be met by the University? Some of the subjects taught to these young men are French, German, Latin, Greek, English, arithmetic, writing, drawing, mathematics, Hebrew, logic, music, theology, geology, civil service, and human physiology.

8770. Have you anything to say in regard to extra-mural teaching?—I am not prepared to enter into that, but I have long held the opinion that if local examinations are not undertaken here by Glasgow University, they will be undertaken by other Universities, such as London.

8771. *Mr. Campbell.*—Do you think the Universities should take a

greater interest in middle-class examinations than they have hitherto done? —Yes. There are several thousands of young men in Glasgow, connected with Institutions, to whom it will be of the greatest consequence to have certificates of merit granted by the University; and in many cases it would lead to students entering the University. The class of students to which I chiefly refer are young men who desire to work up their education to as high a point as possible while carrying on the profession in which they are engaged, and naturally the desire is to get some certificate of merit or a diploma, and they would hail with satisfaction this as coming from a Scotch University more than from any other. At this present moment these certificates of merit are given by the Society of Arts, but only on scientific subjects; and, in order to support the views which I hold as a matter of personal opinion, I can give details from two or three of the large institutions in Glasgow, such as the Athenæum and Mechanics' Institution, which will probably endorse my views. The subject of middle-class examinations was before the Council in 1860–61, when the University Court reported at their meeting in May 1861:—‘The Court having considered the representation made by them as to the expediency of concerting with the Courts of the Universities of Edinburgh, St. Andrews, and Aberdeen, a uniform system of school examination throughout Scotland by means of papers prepared for the purpose, or otherwise, with a view to granting certificates of merit to those scholars who may come forward as candidates and acquit themselves to the satisfaction of a board of examiners appointed for the purpose, resolved, at the earliest convenient time, to take this matter into further earnest consideration; but as members of the Court felt the necessity of first informing themselves more fully as to the details as well as to the success of the system now carried out in England, they agree to request some of the members of the Court who had peculiar means of access to such information to make inquiries and report to next meeting.’ I find that at a meeting of the University Court held on 26th September 1861, the late Professor Ramsay reported verbally the result of his inquiries as to the details and success of the middle-class examinations in England, and since that date the Council have heard no more on the subject from the University Court.

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Adjourned.

FRIDAY, 12th January 1877—(Forty-Ninth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

THE DUKE OF Buccleuch.

SIR WILLIAM STIRLING-MAXWELL.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

JAMES ALEXANDER CAMPBELL, Esq.

JOHN KERR, Esq., examined.

8772. *The Chairman.*—You are a graduate of the University of Cambridge?—Yes; and also of Glasgow.

8773. Are you a Master of Arts of Cambridge?—Yes.

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8774. And of Glasgow?—Yes.

8775. Were you at Trinity, Cambridge?—Yes.

8776. You are Senior Inspector of Schools in the Northern Division of Scotland?—Yes.

8777. Have you turned your attention to the present course of study in the Faculty of Arts with a view to graduation?—Yes.

8778. Do you think it is satisfactory as it stands, or ought any change to be made?—I think there might be a choice given in the subjects that now form the matter of examination; but I would not propose any very wide change.

8779. What would you propose?—I don't think I should be inclined to alter the M.A. degree beyond giving a choice between senior mathematics and some natural science.

8780. That is the only change that you think desirable in the curriculum for the degree of Master of Arts?—Yes. I think the present subjects are pretty much those that go to constitute what makes liberal culture.

8781. And there are none of them that you would be prepared to dispense with, beyond the choice that you have indicated?—Not for the Master of Arts.

8782. Do you think there ought to be any other degree in Arts?—I should like to see the B.A. degree revived.

8783. For what purpose?—There are many men who attend college for a short time, and who, if they could get a degree conferred by continuing for probably another session, would complete that other year so as to have this degree; and that would be useful to many schoolmasters. There are many men who cannot afford time for the degree of M.A., and yet could afford time for the B.A. degree if an additional year would give it to them.

8784. What qualifications would you require for the degree of Bachelor of Arts?—I should like them to have Greek, but I don't think it would do to insist upon Greek; for this reason, that during a three years' course, the student could not take more than one class of Greek. If he came to the University with no Greek at all, which is very often the case, I don't think much good could be got from Greek commenced in November and left off in April. On the other hand, if he comes up well enough prepared in Greek to make an additional six months of Greek profitable, I think he would be able to take the examination which passes into the senior class, and so probably go on for M.A., or at all events shorten his course by a year.

8785. You seem to contemplate that for the degree of B.A. three years at the University would be necessary?—Unless they came up well enough prepared to pass the first year's course by examination, as at present.

8786. And then you would rather expect the students to go on to the degree of Master?—Many of them would, I think.

8787. So that the great bulk of those who took the Bachelor's degree under your proposal would require three sessions?—Many of them.

8788. Most of them would?—Most of them would, and for that reason I should not insist on Greek. I should leave it as an alternative.

8789. You would not exclude Greek?—No.

8790. Would you explain to us what the amount of qualification is which you would expect a candidate for the Bachelor's degree to have?—The classes he must take?

8791. Yes,—Latin, English, mathematics.

8792. Junior or senior?—Junior. I would not insist on senior; then either logic or moral philosophy.

8793. One or other?—One or other; and either senior mathematics or natural science.

8794. But you told us you would not exclude Greek. How do you bring it in as an alternative?—I have not thought of any *class* as an alternative for Greek; but I should make the B.A. who does not take Greek pass a fairly testing examination in French or German.

8795. You have not thought it out?—No. I merely meant that it would be a pity that a man who was not able to attend long enough for the Master's degree, and who had Greek enough to be able to pass in Greek, should not be able to utilize it in his examination.

8796. Should you not be afraid that the institution of the Bachelor's degree would diminish the number of men who went up for the Master's degree?—It might, if the Bachelor's degree carried a vote in the Council with it.

8797. But even supposing it did not, if it confers University distinction, and is a degree in the Faculty of Arts, don't you think men would be very apt to rest satisfied with it?—It is conceivable that many would, but I think a number would go on for another year, and become Masters of Arts.

8798. I suppose you would consider it a misfortune if it tended to make them take the Bachelor's degree and not the Master's?—Certainly; and that is one reason why I should leave Greek as an alternative, seeing we insist on Greek for the Master's degree; and the man who takes the Bachelor's degree and takes no Greek, could scarcely make up the Greek necessary for the Master's degree afterwards. But the B.A. degree would feed the M.A. degree if Greek were allowed as an alternative.

8799. Then there would be very few, probably, who, having taken the Bachelor's degree, would go on to take the Master's?—Unless they had taken the Greek. That is quite true.

8800. With regard to schoolmasters, should you not think that for the masters of the higher schools it would be desirable that they should take the Master's degree?—Yes.

8801. You would not be satisfied with the Bachelor's degree for them?—No, I would not.

8802. And therefore you contemplate the Bachelor's degree as a distinction for the teachers of elementary schools?—Yes.

8803. But is it worth while instituting a degree for the purpose of providing for that? Would it not be sufficient that those who are going to be masters of elementary schools should receive a certificate of qualification?—For teaching?

8804. Yes. It seems hardly worth while to institute a degree for that class of men alone?—No, except that the institution of this degree might be the means of making a larger number of men take an interest in the University and attend more classes. It would spread a University culture over a larger area.

8805. But the culture would be spread even though they were not called Bachelors?—Yes, unless you think the hope of getting a degree would induce them to attend longer than many do now.

8806. To go on farther than you would require them to do in order to be qualified as elementary teachers, you mean?—Yes, I mean that.

8807. You don't contemplate, apparently, the teaching of physical science as any part of the qualification for the Master's degree beyond what is now taught in the natural philosophy class?—No.

8808. You are aware, of course, that in some of the Universities, particularly Edinburgh, there is now a good deal of provision for the teaching of physical science as well as of natural science?—Yes.

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8809. Would you then propose to institute any degree in Science?—Yes, I think so.

8810. For that purpose would you think it desirable to have a separate Faculty of Science?—I think so. I think science is too wide a subject to form an integral part of an Arts degree.

8811. Then would you be disposed in the Faculty of Science to confer degrees for scientific acquirements without any evidence of literary culture?—No, I should not.

8812. What amount of literary culture would you require?—I have not thought that out, but I should insist on Latin. I think it would be incongruous that the University *imprimatur* should be given without some evidence of linguistic training.

8813. Would you think Greek an indispensable part of the culture for a scientific man?—No, I should not.

8814. You would dispense with Greek in that case?—I would.

8815. Do you think that a proper way of securing a sufficient amount of literary culture from candidates for science degrees would be merely examination, or do you think there should also be attendance on classes?—Attendance on classes.

8816. You would require that?—Yes, I think so.

8817. You would not trust to examination alone?—No. I know many men who would bear the mark of a University with great credit to themselves and the University also, who neither know nor could make much practical use of Greek. The same may be said of Latin, but they are exceptions; and I think it is a pity that a degree should be entirely dissociated from linguistic training. I should, therefore, insist upon Latin.

8818. *Dr. Muir.*—You don't think Greek essential in order to understand scientific terms?—It would certainly aid in that very much, but many would find it not worth the trouble.

8819. *The Chairman.*—You don't, I suppose, give any opinion upon what the qualifications for the science degree should be?—No, except that it ought to be a really testing examination beyond the limit of mere 'cram.'

8820. But, of course, there must be attendance also?—Yes.

8821. Would you have more than one degree in Science?—Yes; as I would have two in Arts, I would have two in Science—B.Sc. and D.Sc.

8822. You would have two degrees in Science—Bachelor and Doctor?—I think so.

8823. Do you think it desirable to institute any entrance examinations for students in the University?—Yes; but not to the exclusion of teaching. I should have the entrance examination to serve as a bar against graduation until the examination is passed; but it is a very difficult subject.

8824. Then what privilege would you attach to passing the entrance examination?—That session should count towards graduation.

8825. In short, it should be a step towards graduation?—Yes.

8826. Would you describe it as being the first examination with a view to a degree?—Not exactly that. It would simply be an indication of this,—you have given such evidence of school training as to satisfy us that you are fit to profit by a University course; and, having given that evidence, we now admit you to our classes as a regular matriculated student.

8827. Do you contemplate that that examination should be something less stringent than the existing examination, the passing of which entitles

a student to go to the senior Greek, Latin, and mathematics?—Very much less so. It would require to be extremely easy at first. The difficulty would be to have it easy enough not to be a sham.

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8828. It has been suggested to the Commission that that examination which at present exists, and the passing of which entitles a student to go into the senior classes, might serve all the purposes of an entrance examination if no one were allowed to go into the senior classes without passing that examination; that is to say, that whether a student came direct from school or came from the junior classes of the University, he must pass that bridge?—I was about to recommend that,—that the students who had attended the junior classes of the first year should at the beginning of the second year pass the same examination as those who have come up with a view to pass for a three years' course.

8829. If that were done, don't you think you might dispense with any other entrance examination? In that view the junior classes as they stand at present would be kept up merely because there is not a sufficient number of secondary schools in the country; and if that want were supplied, the junior classes of the University might be dispensed with ultimately?—Clearly. That is not the case at present.

8830. But the keeping up of the junior classes in the meantime would supply that defect?—Yes.

8831. And when the defect was supplied otherwise, they might be abolished?—Yes.

8832. In that view, what do you say to making the examination which is the stepping-stone to the senior classes,—the classes of the second session, as it were,—the only entrance examination?—It seems to me that it would serve the same purpose. It had not occurred to me, but I think it is a very good plan.

8833. It would get over a good deal of the embarrassment attending the introduction of an entrance examination pure and simple?—Yes.

8834. And would it not diminish the amount of examination?—Yes.

8835. Which is rather a growing evil?—Yes; diminution is very desirable.

8836. *Dr. Muir*.—Then if a youth who had attended the junior class could not pass, would you remit him to the junior class again, and not allow him to go farther?—I don't think we could do that very well. But we could say to him, We cannot allow you to go in for your second session, and count it a session towards your degree; but if you choose to come to our class, our advice is, go to the junior class; only, if you take the senior, you must not expect us to lower our instruction to your level. You may take your chance of getting good out of it, but it is at your own risk.

8837. *The Chairman*.—I understand you would not propose to exclude anybody from any of the classes?—No.

8838. But you would make the passing of that examination a necessary step towards the degree?—Yes; and the entrance examination would be useful, I think, as a stimulus to schools. They would certainly aim at not having their students rejected, and this would gradually tend to raise the education in the secondary schools.

8839. The schools would endeavour to compete with the junior classes of the University?—Yes.

8840. *Mr. Campbell Swinton*.—Why don't they do that now?—For several reasons. One is, that the class of men in rural schools are not competent to teach Latin and Greek very far. Another reason is, that the operation of the Scotch Code is very much against Latin and Greek. As long as a teacher can earn as much by making six boys of seven or

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eight years of age pass in reading, writing, and arithmetic—which any ordinary teacher can do without much labour—as he could by endeavouring to make fourteen boys all pass in Latin, Latin has a small chance; it must go to the wall. As long, also, as the demand made on the teacher's time by the three R's—the three standard subjects—is so great, he cannot find time. He teaches for his living, and he yields to the natural temptation to make the most he can. I have found that to be the case even in Aberdeen, where the inducements to maintain the old system of classical instruction are much stronger than they are here. I cannot say that I find fewer children learning Latin than I did ten years ago, but there is certainly far less advanced Latin. There is possibly a greater number learning a mere smattering, which the four-shilling grant requires, but I very seldom get Virgil or Horace now, and seldom or ever Greek,—very seldom Latin prose composition. They have cut down their teaching to the requirements of the Code, which are meagre enough.

8841. *The Chairman*.—Do these observations apply to the schools subsidized by the Dick bequest?—Even to them; but not to all. There are very rare exceptions indeed. There are some schools in which Latin and Greek used to be taught very well, and where there was good Latin prose composition, in which I now find botany, physiology, and physical geography taught,—subjects that have been ground up perhaps in a month; and these subjects are paid at the same rate as Latin and Greek, which take a whole year of decent work to overtake the requirements.

8842. Do you think the botany and physiology which the children learn at these schools are likely to be of much advantage to them afterwards?—I don't think so at all.

8843. They don't remember it?—I don't regard the instruction given in these subjects as being, in many cases, more than a collection of names which they get up, and mis-spell, and soon forget.

8844. They learn by rote?—They learn by rote. I have seen here and there botany well taught from actual specimens; and once or twice I have had a good examination in animal physiology, also with diagrams; but, as a rule, it is a stringing together of words which they don't understand, and cannot spell, and forget as soon as they have learned them.

8845. But as regards the higher schools,—what may be called the existing secondary schools,—don't they send up a good many pupils who pass the examination for the senior classes of the University?—They do. I know them very well. They are such schools as the Ayr Academy, the Glasgow High School, and Glasgow Academy; and there were some from Arbroath last summer.

8846. So that if there was a sufficient amount of teaching of that kind in the country, it would really supersede the necessity of keeping up the junior classes in the University?—It would; but these secondary schools will never supply the vacuum created in rural districts in classical instruction.

8847. That must be supplied otherwise?—Yes.

8848. Nothing in the way of large academies, such as you have in burghs, can ever reach that class?—No.

8849. It is a little beyond our inquiry, but how would you supply that vacuum?—I happen to have in my eye the parish of Strichen in Aberdeenshire, where £1000 or £1600 was left to furnish four school bursaries, the value of which is, I think, £10 a year. The bursary is gained by fair competition; the best boy gets it, and he is at liberty to attend either Strichen Public School, where he has gained the bursary, or any grammar school he likes. They very often go to Aberdeen

Grammar School, or to other schools. I think if every parish or district had a fund of £1000 or £1500 for one bursary a year to four boys, you would bridge over the gap between our elementary schools and the Universities or the secondary schools.

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8850. *Mr. Campbell Swinton*.—You point at these bursaries being frequently utilized for the purpose of keeping a boy at the primary school, and not sending him necessarily to a secondary school?—Not necessarily. The teacher of the Strichen school is a very good Latin scholar, and he trains the boys to within half a year of their going to the University. They then come for a little rubbing up to the Aberdeen Grammar School, and they compete for a bursary at the University.

8851. *The Chairman*.—They are fit by that time to compete for a University bursary?—Yes. I myself examine for that bursary every year. There are generally two or three candidates for one school bursary, and they translate Xenophon and do Latin prose decently well.

8852. You mean they translate English into Latin?—Yes; I give them a piece of unseen English to put into Latin.

8853. *Dr. Muir*.—What is the amount of these bursaries?—I think it is £10.

8854. Don't you think one-half of that might answer the purpose of keeping the boy at that school?—Yes.

8855. To go farther they would require more?—Yes; and it is only in the counties of Aberdeen, Banff, and Moray that we find in every parish schoolmasters who are able to train boys for the University. If you draw a line round these three counties, outside of it you come, speaking generally, into the territory of non-graduate schoolmasters.

8856. *Sir William Stirling-Maxwell*.—And bursaries given to these schools would be of no use?—Not with the present staff of schoolmasters, in very many cases, unless we had B.A.'s.

8857. *The Chairman*.—But your B.A. could not teach them Greek?—He might not. I should prefer Greek very much. I do not undervalue it in the least; what I feel is the difficulty of utilizing only six months of Greek at the University.

8858. *Dr. Muir*.—Do you think that teachers ought to be obliged to attend the course of lectures of the Professor of Education in the Universities where such a chair exists, with a view of getting certificates or passing the B.A. degree?—In the first place, I don't know very well what the duties of the Professor of Education are. I am a little heretical on this subject; and I am rather inclined to think these chairs almost useless, unless they are combined with a school of practical training. I have not the least faith in lectures on method unless exemplified in practice. I think the settlement of such chairs might have been postponed until Government had affiliated what are now our Normal Schools with the University, and then a practical use could have been made of the chair of Education. The culture and training which teachers want is precisely that which the Professor of Education is not supposed to give them. He is supposed to give them instruction how to dispose of what they know; I want them to know a great deal more for disposal.

8859. He gives them theory, and you want practice as well?—He tells them how to dispense their knowledge; I wish them to have more knowledge to dispense.

8860. *Mr. Campbell*.—You would rather they were encouraged to attend the other University classes?—Yes; and if they could add to that, practice in the method, all would be done that could be required. I think the chairs are likely to be barren in their present state.

8861. *The Chairman*.—Is there any other point in connection with

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graduation in Arts that you would like to speak to?—I should be disposed to have more departments for honours.

8862. What would you add?—Science and law, or law and history joined.

8863. What kind of science do you mean?—Natural science.

8864. And law?—And law.

8865. You would not introduce these as optional subjects for the pass degree, but only for honours?—Only for honours; and I think the honours candidates should be freed from a number of their examinations on pass subjects.

8866. Such as?—As soon as the candidate for honours has passed the B.A. examination, I think he ought to be allowed to branch off into his own specialty, whether classics, or philosophy, or mathematics.

8867. Do you mean that if a man passed the examination sufficient for the Bachelor's degree, you would allow him from that time onwards to select law or natural science, and throw everything else aside?—Yes; I mean that.

8868. And then having passed in honours in law, or natural science, you would give him the Master's degree?—Yes, with honours in the department in which he has taken it.

8869. *Dr. Muir.*—Though he did not know Greek?—True.

8870. *The Chairman.*—That would make a Master of Arts without Greek. Are you prepared to do that?—No, certainly not.

8871. You are going to let him stop with his classics when he has attained enough to take a Bachelor's degree, and that he may do without Greek. That is the difficulty of your scheme?—Yes, I quite see that; but the difficulty might be avoided by providing that the candidate for M.A. with honours should not, in his B.A. examination, be allowed to put examination in French or German as an alternative for Greek.

8872. *Mr. Campbell.*—Is there not an objection to calling the subordinate degree Bachelor of Arts, seeing that that term indicates a higher standard of knowledge in other places?—As in Cambridge?

8873. Yes. Would you not rather take some other title, which would not confound it with the degree at the English Universities? Your object is not to have a title, but to have a degree?—Yes. Bachelor of Arts means the same as Master of Arts so far as attainments are concerned in Cambridge.

8874. *The Chairman.*—If people out of Scotland found that in our Universities a degree in Arts could be had with such qualifications only as you require for the Bachelor, don't you think that would tend rather to depreciate in public estimation the value of our degrees in Arts beyond the estimation in which they are held now?—Unless the distinction were clearly made between B.A. and M.A.

8875. But would people who are not connected with the Scottish Universities understand that, or take the trouble to understand it?—Perhaps not.

8876. I think you must know that from your own experience at Cambridge?—There is no difference between B.A. and M.A. there.

8877. People at Cambridge, for example, would not understand the distinction between the Bachelor's and Master's degree as you propose to institute it here, and would never come to understand it?—No, they would not.

8878. And therefore they would undervalue the whole degree? Don't you think that is likely?—It is quite likely.

8879. *Mr. Campbell.*—Would that objection not be got over by having an entirely different title, such as licentiate or associate?—Yes.

8880. *The Chairman*.—Or by making no degree at all, but merely a certificate?—Yes.

8881. Do you think any change should be made in the length of the sessions?—I don't think they ought to be made longer than they are now.

8882. Should there be any re-adjustment of them?—I don't think that any change would suit the class of Scotch students better than the present arrangement.

8883. Is the winter session not rather a long uninterrupted period of work?—I believe it is the fact of its being long and uninterrupted that makes it valuable to many of the Scotch students.

8884. Don't you think it is too great a strain upon the mind,—the length of the session without interruption?—I thought the question referred to the length of the vacation, and my answer applied to that. Six months is a very great strain, but they could scarcely spend less than half a year in instruction; and in order to have half a year of vacation, which many of them require in order to furnish the means of attending next session, they must have six months of session.

8885. What I rather mean to suggest is whether the session, without lengthening it much or at all, might not be divided?—With a break in the middle?

8886. Yes?—Of what length of time?

8887. That I would ask you to give your opinion upon. Do you think it desirable at all, for a short time or a long time?—I don't recollect myself, when attending either Glasgow or Edinburgh Universities, being exhausted with the length of session.

8888. In short, you think they may get through the five months, or whatever it is, quite well?—Quite well.

8889. And the length of the vacation you seem to consider rather a desirable thing in itself?—It is unquestionably so for many students.

8890. Would you give your reasons for that?—Many of them used to take schools. They will do so less now since a certificated teacher is required to earn the grant. But many of them find work.

8891. Remunerative employment, you mean?—Yes; and if it were broken up into two short vacations, it could not be utilized at all.

8892. You are aware that summer sessions do exist for various purposes?—For botany and some medical classes.

8893. And there are tutorial classes in the Faculty of Arts, at least in Edinburgh?—Yes.

8894. And I rather think in Glasgow too?—I cannot speak as to that.

8895. You don't object to that, I presume?—Not at all. They are very good for the backward students who wish to make up leeway, and they may be very good for students reading for honours.

8896. But I understand that you would object to have a summer session which should be compulsory upon students in Arts?—Yes, I think so.

8897. *Mr. Campbell*.—You are aware that the want of summer classes in the departments taught under the Faculty of Arts has been alluded to as an objection to our Universities?—I know that many people have clamoured for them.

8898. *The Chairman*.—Are there any defects in the teaching in the Faculty of Arts that you think would require to be supplied by new professorships or lectureships?—I think the classes in such a large University as Glasgow are too large for the management of one man, and the variety of attainments with which students come up is too great to be overtaken by any teaching, however pitched.

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8899. How would you remedy that?—Some of our fellowships are worth £150 a year and tenable for three years, and I should be disposed to attach to them the condition that they assist either by lecturing or by revision of papers, or in some way taking a subdivision of a class in the subject for which they hold their scholarship,—if a philosophical scholarship, to teach the moral philosophy or logic class; if a classical scholarship, to teach the Latin or Greek class; and if a mathematical scholarship, to teach the mathematical class. This is done in Glasgow to a considerable extent already. There are the Euing scholarships for three departments; the Clark scholarships for three departments; and some others, to which is attached the condition that the holder shall teach, in the department for which he holds the scholarship, tutorial classes in aid of the professor; and these, I am told, work really well.

8900. Then you would look to the multiplication of such foundations as that, with the condition of teaching attached to them, as the proper remedy for the want of teaching power?—Yes.

8901. That, however, must depend, of course, upon such foundations being forthcoming?—Yes.

8902. But in the absence of any such foundation in the Latin class, for example, in Glasgow, which we know to be a very large one, what remedy would you suggest at present for the want of teaching power there? Would you give the professor assistants, or would you divide the class between two professors, or how?—By assistants, I think.

8903. You would rather have one professor at the head of all?—I think so; otherwise the value of the chair would be very much diminished, and the competition for it when a vacancy occurred.

8904. You would not get so good a man?—You would not; and I think thoroughly qualified assistants can be got on not very extravagant terms, from Oxford and Cambridge, or elsewhere. So that there would be no want of teaching power.

8905. *Dr. Muir.*—According to your idea, how many students could an assistant properly superintend and teach?—That would depend so much on the method of the man that it is a very difficult question to answer. The late Professor Ramsay could have managed a class of two hundred to better purpose than many other men could manage a class of fifty. He had a wonderful sympathetic power; he had the students thoroughly in hand, and he had command of their attention at all points. Sustained attention is the secret of success in teaching a large class. If the teacher has the knack of sustained attention, a large class may be taught as easily as a small one.

8906. *The Chairman.*—In connection with that subject, do you think it desirable to introduce extra-mural teaching in the Faculty of Arts upon the same lines as it at present exists in the Faculty of Medicine?—No, I would be very much opposed to that.

8907. What is your objection to it?—It would tend, first of all, to produce cram. The end and aim of the extra-mural teacher would be to make the students pass the examination, and he would be apt to disregard the culture that underlies mere knowledge; and that is not the case in most of our chairs.

8908. *Mr. Campbell Swinton.*—I suppose you think the professor in self-defence would be obliged to do the same?—He would be tempted to do the same. The teaching of our University chairs is higher a good deal than the examination.

8909. *The Chairman.*—That is to say, they learn a great deal more in the class than they require to learn in order to pass the degree?—Yes.

8910. Or at least they may if they choose?—Yes.

8911. Then you are altogether against extra-mural teaching in Arts?—Entirely. I think it would tend to destroy what there is already too little of—University life.

8912. But your main objection is that it is calculated to produce cram?—Yes, and also to reduce the value of the chair. And I don't think there are many instances in which the incompetency of the professor is so great as to warrant the application of a remedy of such a very doubtful character. At least in appointments made since the passing of the late Act, I don't think we can point to many cases of such marked incompetency among our professors as to warrant the introduction of that questionable remedy. And the University Court, holding now as it does the majority of the appointments, ought to be able to secure as good a man for the chair as can be got outside of the chair.

8913. At the same time, there may even, when patronage is very well exercised, be occasionally an incompetent, or at least not very efficient professor?—Yes.

8914. Could you find any remedy for that except extra-mural teaching?—Except in the way of tutorial help,—assistance from within rather than competition from without. Another reason why I should object to extra-mural teaching in Arts, as compared with medicine, is that the aim of the Arts course is to give culture; the aim of the lectures in medicine is to give knowledge of facts. Culture may go with it, but culture is not the prime aim. In Arts the aim is culture, and I don't think students or parents generally are the best judges of that. If the extra-mural lectures suffice to enable the student to pass the examination, they have so far served their primary end. It is not so in the Arts course.

8915. Have you any suggestion to offer as to the retiring allowances of professors, or their emoluments generally?—I think they ought to be made more attractive than they are now.

8916. Which?—The retiring allowances,—so attractive that a man should after, say, twenty-five or thirty years' service, be induced to retire though there is no failure of health. I think the University Court should have power to cause a man to retire at a certain age, or after a certain number of years' service, without being obliged to prove him inefficient, which is very often delicate and difficult.

8917. In short, you would give greater facilities for retirement?—Yes.

8918. Do you think that the scale of retiring allowances is sufficient?—I do not know what they are.

8919. Have you anything to offer in the way of suggestion about the disposal of bursaries and scholarships, and the like foundations?—I have a very strong opinion on the importance of making all bursaries freely and openly competitive so far as that can be done.

8920. When you say as far as it can be done, do you mean that you would make them all open to competition, if you could?—Yes.

8921. Then you would confine charity of that kind entirely to the most intellectual and the most industrious boys, to the exclusion of all consideration of poverty?—Yes. I think if a lad is poor both in purse and in brains, the University is no place for him. He will find a field for his energy elsewhere better suited to him. I have perfect sympathy with a lad, however poor, who has brains; but if he is poor in purse and brains, the University is no place for him.

8922. The effect of that would be to a considerable extent to give these charitable foundations to those who did not require them?—That

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is an evil, no doubt; but it is small compared with the advantage in respect of spirit and life and activity that would be thrown into the whole of University work by their being perfectly open to competition.

8923. What do you say to bursaries which are founded for boys coming from particular localities, such as counties? Are they not desirable foundations?—Yes, as being partly good; but they would be still better if they were made imperial rather than local. They do good for that district and parish; but it is remarkable what a very small crop of good students compete for many bursaries in Renfrewshire and Ayrshire.

8924. There is competition in those cases, although within a limited area?—An area so limited that very often the competition is very, very weak.

8925. And practically no competition at all?—Very often. I think we want more bursaries in Glasgow, and probably elsewhere, for the encouragement of such lads as come up from the rural districts badly prepared, and who are quite unfit to carry a bursary on their first joining the University, but who in the course of a year or two years' training develop a faculty in the direction of mathematics or philosophy, when it is too late to get a bursary. They could then compete successfully were there scholarships open for competition at that stage; but there are no bursaries or scholarships at present in Glasgow for second or third year students.

8926. You think that a desideratum?—Yes.

8927. *Sir William Stirling-Maxwell*.—Are the bursaries you mention in Renfrewshire and Ayrshire purely parochial bursaries?—I think not. Some are confined to names, others are confined to Renfrewshire. There are the Patrick bursaries.

8928. Do you think that parochial bursaries which are given to boys of a particular parish do good or harm?—They do good; but they would do more good if they were made imperial rather than local.

8929. When you say imperial, do you mean open to the whole county, or the whole country?—I mean, supposing all the funds that are now confined to individual names or parishes could be transferred to the University seat, or be formed into a number of bursaries of certain value to be open to competition to all comers, more good would be done for education at the University, than by having them confined to the narrow area of a parish or district.

8930. *Mr. Campbell Swinton*.—But the school to which that bursary is attached would not derive so much benefit?—It does not do the least good to the schools. In Strichen, the parish already referred to, the schoolmaster does not get a penny of the £1000. It is given to the lad who earns the bursary, and he can carry it away to any other place he likes.

8931. *Sir William Stirling-Maxwell*.—Except that the boys capable of competing for such bursaries would, so far as they had a choice, go to the schoolmaster who can teach them most efficiently?—Yes; and that is a very questionable benefit now, for the labour spent in teaching Latin is very badly paid. In fact, many teachers who used to teach Latin say they would rather not teach it. The demand made on their time by other subjects is so great.

8932. *The Chairman*.—There are in Glasgow, as well as elsewhere, recent foundations of scholarships and fellowships which are open to students who have taken their degree in Arts. Do you think these are beneficial endowments?—I think so. They encourage the higher learning.

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8933. Even apart from the project of utilizing them for teaching purposes?—Yes, they are.

8934. They are rewards for work already done?—Yes, and inducements to continue working hard during the undergraduate course.

8935. During the curriculum?—Yes.

8936. Inducements to work, and rewards for having so worked?—Yes; I suppose it is to the same cause that we can trace the superior scholarship of Oxford and Cambridge.

8937. There are none in the Scotch Universities that endure beyond three or four years?—I think not.

8938. And I suppose you would not be inclined to extend the term of the enjoyment of them?—Not till we get very much richer.

8939. But supposing you were richer, would you extend the term of the enjoyment of a fellowship or scholarship by one individual?—I should not be inclined to carry it very much farther than it is just now,—three or four years.

8940. In short, you are quite in favour of what are called idle fellowships, for a limited period?—Yes; I think they have done good in England,—not so much good as they might have done, but they have done good.

8941. Don't you think that the reason why they have not done so much good in England, is that they last too long?—Yes, I think so. The holder of them was indifferent as to following any other profession until he had got used to his comfortable chair in his college rooms; and by the time that he required to make an effort, it was beyond his power, or, at any rate, contrary to his inclination, to make it.

8942. Whereas, if you give it only for three or four years, you give it at a time when the young man is very much in want of pecuniary help to start him in life?—Yes; and not for such a long time as to beget habits of idleness. I may hand in a pamphlet on the bursary question, printed at the request of the Glasgow Council in 1871, on Competition as opposed to Presentation Bursaries. It shows very clearly the difference between the effects produced by presentation and competition bursaries in Aberdeen.

8943. This is an address delivered by yourself?—Yes.

8944. To the General Council?—Yes; and they wished it to be printed. It shows how completely barren the presentation bursaries are in good results as compared with competition bursaries.

8945. You take a good deal of interest in the deliberations of the General Council, do you?—I have not had time for these last three years. I used to come to Glasgow pretty often to the meetings.

8946. Is there anything further you would like to suggest?—I think the preliminary medical examination requires adjustment in some way. I am assured that the settlement of the fees for the examiners was made before the preliminary medical examination was tacked on to their duties; and it has been always a moot point whether they ought really to do the work or not. I believe the professors in the Faculty of Arts generally say it is not their duty at all. The Medical Faculty agreed to have it done, but to pay for it also. They have got it done, but they have not paid for it. There is another point which is not satisfactory, at least in Glasgow, viz. that the control of the examination is not fully in the examiner's hands. The papers are set by him, and sent to the printer, distributed for working, and worked in his absence, superintended he knows not how. I daresay it is all right enough, but he does not know how it is done; the papers when worked are sent back to him for revision. He marks them ac-

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cording as they pass or fail, and sends them to the registrar, and hears no more of them. He does not know whether effect has been given to his passes or his plucks, though I daresay it is all right enough; but the principle of all examinations is that the examiner should know that effect has been given to his opinion.

8947. You are speaking now, I think, from your own experience as an examiner?—Yes.

8948. How long were you an examiner?—Three years in Glasgow and three in Edinburgh.

8949. And do these observations apply to both Universities?—No. In Edinburgh we required to attend during the working of the papers. We met after the revision of the papers with the Dean of the Faculty of Medicine, and settled who were to pass and who were to be plucked; in fact, we had the control of the examination entirely.

8950. Then you approve of the system as pursued in Edinburgh?—It gives us very much more trouble. It involved a week's more attendance; but it is certainly more satisfactory.

8951. *Mr. Campbell.*—Why is the system different in Glasgow?—I don't know.

8952. Is it in the hands of the Medical Faculty?—I know no more than I have said.

8953. *The Chairman.*—By whom were you appointed an examiner in Glasgow? By the University Court?—Yes.

8954. And the same in Edinburgh?—Yes.

8955. Does the University Court regulate the manner in which the examination is conducted, or do they leave that to the examiners?—It becomes very much a matter of tradition. We find the papers previously set printed in the Calendar; they form the model for our imitation, and I did in Edinburgh pretty much just what my predecessors had done before me, and I did in Glasgow pretty much what my predecessors had done before me in Glasgow.

8956. You mean you give the same kind of papers?—Yes; and followed the same method of revision and kind of marks, and, in fact, just did as had been done before me. In Glasgow, the Arts professors take no share whatever in the preliminary examination for Medicine; in Edinburgh, Professor Masson does, I think. I don't think I ever saw Professor Sellar or Professor Blackie at one of the meetings at which the settlement of pass or pluck was made for the preliminary medical examination. Professor Masson always was there, and I think Professors Fraser and Kelland.

8957. *Mr. Campbell Swinton.*—I suppose, in Glasgow, the extra-academical examiners are not present at determining the result of the papers? I suppose it is the professors who do that?—I sent the papers marked. I do not know who was present at determining the result.

8958. Then it is done by the registrar?—I suppose so. I have no reason to doubt that effect was given to the marks.

8959. *Mr. Campbell.*—You are speaking exclusively of the preliminary examination of medical students?—Yes.

8960. What you say has no reference to your work as examiner in Arts?—No. There was a deliverance made lately by a high educational authority, somewhat to the effect that the introduction of extra-mural examiners had really had no effect on the degree in Arts at all—that, in point of fact, the passing or plucking of a man depended entirely upon the professors and not upon the extra-mural examiners. So far as my own experience is concerned, it is entirely the reverse of that. Both in Edinburgh and Glasgow I set the whole of the papers, with the

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exception of now and then, when I would suggest to Professor Sellar or Professor Blackie, or to Professor Lushington or Professor Ramsay, to give me one or two questions; but as a rule I set all the papers. And as to the revision of them and the settlement of marks in the pass papers, all who were clearly pass, or clearly failures, were settled entirely by myself without the least reference to Professor Ramsay or Professor Lushington. Those that were doubtful were made the subject of consultation between the three of us; and I can say, that in no case was there any attempt made to over-ride my opinion in the direction of leniency. That applies very much to Edinburgh also, for the pass degree. For the honours degree it was different. In both cases I set approximately the whole paper, having now and then a question from some of the professors; but as a rule the paper was mostly mine, and in the revision of them the three of us always met, and we settled the honours award by joint opinion. And there, again, I never saw any attempt on the part of the professors of Edinburgh or Glasgow to over-ride the extra-mural examiner's opinion.

8961. *The Chairman*.—Then you think the present system of examination for degrees in Arts works very well?—Very well.

8962. In both these Universities?—Yes. I was surprised that the statement I refer to had been made.

8963. Is there anything else that you would suggest about the preliminary examination in Medicine?—Nothing, except that it ought to be settled how far it is the duty of the Arts examiners to undertake it. The professors hold that it is not their duty,—that it does not belong to the Arts Faculty at all, and if so, it cannot belong to the examiners in Arts. Yet they always do it.

8964. *Mr. Campbell Swinton*.—Do the professors take no part in it?—I speak only of Latin, Greek, French, and German. They have no share in the setting of the papers nor in the revision of them. And it is somewhat of a drawback to examiners at a distance, because in Edinburgh you must attend during the working of the paper—which means two or three days; and you must remain in Edinburgh during the revision of the papers, which means three or four days, and another day to settle the final award. That is a whole week. And between that week and the degree examination there are four or five days. Now, to a busy man like myself, it was rather a drag to come from Aberdeen to Edinburgh for four days and go back next week again, especially if the duty does not belong to me.

8965. *The Chairman*.—The extra-mural examiners are paid by salary?—Yes.

8966. And not by the amount of work?—Not by the amount of work. The salary, it is said, was fixed at first without regard to the preliminary medical examination; and when the question was asked, Who is to examine in the preliminary medical? they said, The examiners in Arts. Then they said, Oh, we will pay them; but that is not done.

8967. You think that matters ought to be settled more definitely?—Yes, it ought to be settled to whom the work ought to belong. I forgot to say, in connection with the entrance examination for the curriculum in Arts, that it would be necessary to exempt men of upwards of twenty years of age for some time.

8968. That is to say, if you instituted an entrance examination for the junior classes?—Men of that age ought to be exempted from passing it. Many of them come up from districts where they have no means of getting high education at all, and their only chance of getting education is by coming to the University, and they may be able to make up their leeway

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in the course of another session. And the examination, if instituted, ought not, I think, to be on a number of specific subjects, failure in any one of which involves failure in all; but it should be a general test as to whether the lad has found in his school work an amount of education that would fit him to profit by the University; so that if he were good in Latin and poor in arithmetic, the goodness of the one might atone for the badness of the other.

8969. Is there anything more that you have omitted?—We often found a difficulty in Edinburgh and Glasgow from not being able to indicate pass men by some mark, to distinguish those who passed well from those who just scraped through. I think there should be some such mark.

8970. Under honours?—I am at present speaking only of the pass.

8971. Those who pass with credit and those who simply pass?—Yes.

8972. *Mr. Campbell Swinton.*—At present you arrange them alphabetically?—Yes; and we had difficulty with the honours classes. There are only two classes of honours, and as the second class is the lowest class, it seemed to carry a kind of disgrace with it; whereas, a second-class man, in Glasgow or Edinburgh, is very often a very good scholar indeed; and we often felt that it discouraged men who, though they were good scholars, knew that they were not equal to the first class, and did not choose to be apparently disgraced by falling into the second; whereas, if there were three or four classes, the second would be a place of more distinction.

8973. *The Chairman.*—Would you have three classes in honours?—Yes, at least three.

8974. And you would have a fourth class which would contain the best of the pass men?—I did not mean that. The pass men should be divided into several grades—three might serve the purpose for some time; but in our desire to keep up the standard of first class in the honours degree very high, we have caused a great deal of disappointment to men who fell into the second, the second being apparently a kind of disgrace. That would not be felt to be so if there was a third class.

8975. But then, how would the third class men feel?—The third class man is perhaps a weak man; the second class man is probably a good scholar, and he might be discouraged from coming up.

8976. *The Duke of Buccleuch.*—Would you allow a man to go up for the Master of Arts degree though he had not taken the degree of Bachelor?—Certainly.

8977. *The Chairman.*—Have you anything further to state?—No.

Adjourned.

SATURDAY, 13th January 1877—(*Fiftieth Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

THE DUKE OF BUCCLEUCH.

SIR WILLIAM STIRLING-MAXWELL, Bart.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

JAMES ALEXANDER CAMPBELL, Esq.

JAMES BRYCE, M.A., LL.D., examined.

8978. *Mr. Campbell Swinton*.—You are a graduate of the University of Glasgow,—a Master of Arts and Doctor of Laws?—Yes.

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8979. You were for some years mathematical master in the High School of Glasgow?—Yes, for twenty-eight years.

8980. And you retired a few years ago?—Two years ago.

8981. You early took a great interest in the subject of University reform, I believe?—Yes. In 1849 I formed an association of graduates of Glasgow University. I got a number of distinguished graduates about Glasgow to unite with me in organizing a society and agitating the question of University reform. We communicated with graduates of Aberdeen, St. Andrews, and Edinburgh, and they also formed associations. Mr. Norman Macpherson (now professor in the University of Edinburgh) took a very active share in the work at Edinburgh and Aberdeen.

8982. That was one of the movements which led to the Universities Act?—Yes. It spread over the Universities and led to the Act.

8983. Then, I presume, you have, since the passing of the Act, taken an anxious interest in its working?—I have all along done so, and I have referred to the subject in several publications, in addresses to educational meetings, and in other ways. In doing so I had no political leaning whatever. It was always an object of the Graduates' Association to obtain representation for the Universities, with the view of acting as a sort of counterpoise to the popular element, which we felt was getting too strong in our representation; so that there really was never anything of the nature of a party leaning in our operations.

8984. They were entirely devoted to University objects?—Entirely; and in the present movement I consider there is nothing of the nature of political feeling.

8985. *Dr. Muir*.—And, notwithstanding all that has been done in University reform, you still think there is a great deal to be done?—I think the Act is capable of much improvement.

8986. *Mr. Campbell Swinton*.—Will you favour us with your views as to the constitution and powers of the University Court?—I think, first, that the University Court is too small; it appears desirable that it should consist of a larger number of members, and yet not of a very large number.

8987. How many would you suggest?—I consider that, at the very least, in order to represent all interests and to give confidence to the public, there should be eleven members; and I would get that number in this way,—by giving the Faculty of Arts an assessor, the Faculty of Medicine an assessor, and the Faculties of Divinity and Law combined

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one member, so that there would be three assessors from the Senate; and then I would give the General Council three assessors,—which would make up the number to eleven.

8988. That would include the present assessors?—I would not alter the present arrangements otherwise than as I have just stated.

8989. *Dr. Muir.*—And you would apply that to all the Universities?—I would. The Courts of the different Universities are not equal in number at present. There are seven members in Glasgow, eight in Edinburgh, and six in each of the other two Universities. The addition which I have suggested would give a court of twelve in Edinburgh, eleven in Glasgow, and ten in St. Andrews and Aberdeen.

8990. And you do not think that would be too large a court for the discharge of the particular duties the University Court is intended to discharge?—I think it is the very smallest that would give confidence to the public. When you consider that the Rector is seldom present, and that there are chances of other members being absent, you could hardly reckon on more than nine; while the present number is seven, or, with the Rector absent, only six. In this way all interests are not represented, and the public confidence in the elections to vacant chairs is lessened.

8991. *Mr. Campbell Swinton.*—Then your opinion is founded on the fact that in your University the University Court exercises the function of appointing to chairs?—Yes, to the more important chairs.

8992. You are aware that is not the case in Edinburgh?—Yes; the influence of the Court there is indirect.

8993. *Dr. Muir.*—What quorum would you be inclined to assign?—A quorum of seven at least.

8994. *Mr. Campbell Swinton.*—Do you think that the Court, constituted as you suggest, should exercise the same powers that it has now?—I should think the same powers which it has now. But there ought to be a committee of the Court; in fact, I should like to see the names changed altogether,—the General Council called Convocation, as in the London University and in the Queen's Colleges in Ireland, and the Court called the Council; and I should have a committee of three or four professors and the Principal, for discipline; which committee I should call the Court.

8995. Instead of allowing the discipline to be exercised by the Senatus as a body, you think it would be better to have a committee of the Senatus?—Yes; and that committee would be desirable for other purposes. The Senatus is now very large,—consisting of upwards of thirty members,—a smaller body for general management would be desirable.

8996. Would it not be in the power of the Senatus now to devolve its functions upon a committee?—Probably it is so, without statute, but of that I am not certain.

8997. *Mr. Campbell.*—You say you think the General Council should have three assessors as members of the Court. How would you propose that they should be elected? Should they be elected by the majority of the Council, or do you think that any minority of the Council should be represented?—I have not contemplated it being done otherwise than it is done at present.

8998. Do you not think it would be a good plan that each member of the Council should have only two votes, so that the assessors should not all represent the same body?—This did not occur to me before. It would be a sort of three-cornered constituency,—the same as exists with respect to the representation of Glasgow and Liverpool in Parliament. In regard to government of the University, I would dread the introduction of anything like political or denominational feeling.

8999. *Mr. Campbell Swinton*.—Would you make any change in the functions of the General Council?—I fear the Council is in danger of dying out for want of larger powers. I find that, so far as the M.A.s of Glasgow and Aberdeen are concerned, the deaths are more numerous than the graduations.

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9000. That arises from the fact of the Council being to a considerable extent made up, under its original constitution, of men who are not graduates, but who have merely attended a certain number of classes?—Yes. The Council has little to do, and the meetings have become smaller in successive years, simply from want of interest; and unless more power is given it will die out altogether. It may be a question whether it is worth preserving, but we are going on the supposition that it is, and I think some provision is necessary to give an increased interest. One method is that which I have proposed,—an increase in its representation in the Court. Another would be the power of adjourning, which all meetings should have. It is easy to see also that one person might so arrange that he could talk a meeting out or weary the patience of the audience, and the business be left undone.

9001. Do you mean adjournment to next day?—To any other day. In the next place, I think there should be a power of calling special meetings. A case occurred last spring, when a Bill with respect to the University education of women was introduced into Parliament in the interval between two meetings, and there was a strong feeling that an opinion ought to be expressed regarding it by the Council, but we had no opportunity of doing so. The Bill was withdrawn, so it did not signify; but in view of the occurrence of such a case, or the death of a Chancellor or an assessor, it would be well that the Council should have the power of holding special meetings.

9002. Where would you vest the power of calling special meetings?—I should think in the Court constituted as I have suggested.

9003. Would you give the Court an unlimited power to call any number of special meetings when emergencies arose?—It would be left to their sense of necessity. Such a course would not be taken uselessly.

9004. *Mr. Campbell*.—You do not propose it should be called on a requisition from a certain number of members of the General Council?—It has occurred to me that that might be a very good course.

9005. That they should address a requisition to the Court?—Yes.

9006. *The Duke of Buccleuch*.—Do you mean by that an alternative mode of calling it?—I thought of both ways,—a requisition to the Court, and that the Court should then have the power of calling the meeting.

9007. *Mr. Campbell Swinton*.—How many signatures would you require to such a requisition?—Perhaps a hundred members.

9008. That would be a considerably larger number of members than ever attend the meetings?—Yes, generally; but it could easily be got from the neighbourhood.

9009. Are there any powers that you would give to the Council which it does not possess at present?—I do not think that it is very desirable that the Council should interfere in the internal affairs of the college. The Senatus and the Faculties are the best judges as to internal affairs; and I do not see there are any other powers the Council could properly have. They can set forth recommendations upon any public question relative to the University.

9010. And, even then, is it only those who are resident in Glasgow or the neighbourhood whose opinions are elicited?—Members very seldom come from a great distance.

9011. *Mr. Campbell*.—Do you think the want of the power of ad-

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journment has ever been practically felt?—I do not remember a case in which it was; but one can see it might be felt,—as on the occasion when the Bill I have referred to was introduced.

9012. *Mr. Campbell.*—That is rather on the question of special meetings?—True, yes; I do not remember any case in which an adjournment was required.

9013. *Dr. Muir.*—Might not the difficulty of men talking against time be met by laying down a rule that no man shall speak above a certain time?—Yes; but often that is a bar to full discussion, and a number of men might combine to run the time up. As a rule and principle, I think that every body like the General Council should have these powers without reference to particular questions.

9014. *Mr. Campbell Swinton.*—Would the fact of an adjournment taking place not have the effect of throwing the influence of the Council more and more into the hands of those who are resident in the University seat or its neighbourhood? I mean, that men might come from a distance to attend a single meeting who would not be likely to remain for an adjourned meeting?—That is quite true; but, practically, members from a distance very seldom do come.

9015. Will you favour us with any remarks you have to make as to the curriculum of the Faculty of Arts?—I think that in the present arrangements of the Faculty of Arts, natural science does not occupy the place it ought to have. It has been greatly neglected, more especially in Glasgow. I am not so well acquainted with the arrangements in the other Universities. I think that a course of natural science—one or two branches of natural science, botany, zoology, or mineralogy—ought to precede the logic course.

9016. As an imperative course?—As an imperative course; and I think a short elementary course of natural philosophy ought also to precede logic and ethics. I believe that the students, particularly those who come from the country, and who have had no education in natural science or physics, are very much at a loss in the logic class on many occasions; it would be a great advantage to them to have a course of this kind before logic. The present Professor of Natural Philosophy always has had two courses, as had his predecessor, Dr. Meikleham,—an experimental course without mathematics, and a separate mathematical course. The experimental course might be shortened, and the fee somewhat reduced, and the course might come before the logic class. It would improve the students' minds immensely, and would fit them for deriving much more profit from the logic class, which is by far the most effective class in the University for educating a man all round. I think that nothing has been equal anywhere to the logic class of Glasgow University for a long series of years, since Professor Jardine put it upon its present footing; and it has been conducted in a most admirable way by his successors, Professors Buchanan and Veitch. An immense advantage, I believe, would be given to the students in deriving benefit from that class by such a course as I have indicated,—one in natural science, which is so constantly referred to by the professor, and one in natural philosophy.

9017. Then you would not substitute that for the regular course?—Certainly not; there ought to be a course afterwards.

9018. And you do not think it would overweight the curriculum to have that?—I do not think it would, because the student could take afterwards the mathematical course only. The great difficulty in instituting new classes is the time of the student. I know this practically from having been concerned with students from the High School. The

great difficulty is not so much the fee as the time to attend classes, and to properly digest the knowledge obtained. But a short experimental course of natural philosophy, and a short course of natural history, might be brought in, and might afterwards count for the certificate.

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9019. Those suggestions are all with reference to the curriculum for the degree of M.A.?—Yes.

9020. Have you instituted degrees in Science at Glasgow?—The degree of B.Sc. was instituted a few years ago.

9021. *Dr. Muir.*—Can you explain how the subjects with which natural science is concerned are likely to be more profitable to the student of logic than any other branch of human knowledge would be?—They are the best preparatory training, and the most suitable for the young; the student has gone over a course of Greek and Latin for probably two sessions, after having had a full course at school, but he knows nothing of natural science. The Professor of Logic, in his lectures, is making constant reference to classification, classes, orders, subdivisions, and so on, and many of his illustrations are taken from those subjects; hence the students are not fitted to derive from his lectures the benefit they would derive if they knew natural history beforehand.

9022. *Mr. Campbell Swinton.*—You apply that principally to the prelections of the Professor of Logic?—Specially to the Professor of Logic, but to Ethics also. I think the arrangement of the course ought to be such as to make the logic class as effective a training as possible to the students, as I consider it is the most important class in the University for developing the faculties, producing the thoroughly educated man, and enabling him best to use all the knowledge he has acquired.

9023. Have you any other suggestions as to the curriculum for the degree of M.A.?—I think that in no arrangements that may in future be made for graduation ought metaphysics to be left out. I have been looking into the arrangements of the Queen's Colleges, and I find there that this subject is not embraced in the degree course; it is optional. This, I think, it ought not to be.

9024. Would you make any of the classes at present required for the M.A. degree optional?—I would not make any of what have been called the 'gown' classes in Glasgow optional, viz. Greek, Latin, logic, mathematics, physics, and metaphysics. But I think metaphysics ought to be the last. It is usually taken before physics, but it would be taken after with more benefit. It is the most difficult of all, and a good logic training is the best preparation for it; maturity of mind given by the previous courses is required for the metaphysical course.

9025. Then you would not introduce any other subject as optional instead of any of those required for the M.A. degree?—No. I think they ought to be made imperative for every degree. I hold that a man cannot be called an educated man if he has not had such a course as I have indicated.

9026. Do you apply that also to the degree in Science?—No, not to the degree of B.Sc. I think there is a feeling that that degree will be given up. I have not gone much into the question, but I understand there is dissatisfaction in regard to it.

9027. Would you have no degree in Science as distinguished from the degree in Arts?—I am not prepared to recommend anything of that kind. I would simply let it stand as it has been. I shall speak of that when I come to the B.A. degree, afterwards.

9028. Do you think that the present arrangement as to taking a degree with honours is satisfactory?—I think it is very satisfactory; but there

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are no means of making known who the students are who have got honours except by the publication of their names in the Calendar. There ought to be some means of letting it be known by published class lists, so that a student who got a degree with honours would be a marked man.

9029. Are there no class lists of that kind published in the newspapers?—In a disconnected way only, not as they are in Oxford. I think something ought to be done to give honours more value in the eyes of the public.

9030. *Mr. Campbell.*—You are aware that in the Calendar the names of the Masters of Arts with honours are given?—Yes, but that only tells as regards students; people generally do not think of buying the Calendar.

9031. How would you propose to make their honourable position more widely known?—By advertisement of the honour lists in the newspapers.

9032. *Dr. Muir.*—Do you think that honours might be taken in other departments besides those embraced in the curriculum required for the degree of M.A.; as, for instance, in comparative philology, the Germanic languages, the Semitic languages, and so on?—Yes, it would be very desirable; but I do not think there are at present in the college the means of acquiring those languages.

9033. Except Hebrew?—Yes. An option is given to the student as to what department he shall go in for; and some go in for honours in classics, some in mathematics, and some in mental philosophy.

9034. *Mr. Campbell Swinton.*—There is no option as to the classes that may be taken for a pass, but an option as to the branches in which a man may take honours?—Just so.

9035. Do you think that any new degrees are required?—I do not think there is necessity for any alteration except this, that the degree of B.A. ought to be revived. I think there is a general feeling now that it would be well to revive it.

9036. What curriculum would you think necessary for that degree?—The former curriculum was the whole 'gown' course, omitting either ethics or physics. It used to be so taken. That was the old arrangement. I consider that now it would be well to make the B.A. degree embrace the whole 'gown' classes.

9037. In what respect would it differ from the M.A. degree?—I would allow the M.A. degree to be taken two or three years afterwards by an extra examination, or by the presentation of a selected thesis, or by voluntary examination upon certain higher subjects.

9038. But in the same branches of knowledge which are in the B.A. curriculum?—Yes. That would equalize our B.A. degree with the B.A. degree of the London University and of the Queen's Colleges of Ireland. In the Queen's Colleges it embraces the whole of our course.

9039. That would make it as high as your M.A. degree at present?—Yes; and would have the effect of raising the M.A. a stage higher.

9040. Do you think it would have any effect in making the men satisfied with it, and preventing them going on to the M.A. degree?—I do not think that is likely.

9041. Would you require any further attendance on classes for the M.A. degree?—No, I would not propose any further attendance, but only an examination or a discourse.

9042. What precise benefits do you anticipate from the revival of the B.A. degree?—Well, it is an old-established degree, and I think there is a feeling in the Universities that the Commissioners who recommended its abrogation had not weighed the subject sufficiently. It is a degree that exists in the English and Irish Colleges, and is regarded as equal to

our M.A. It would raise the status of both degrees if we revived the B.A. with the course of study I have indicated, and superadded something to obtain the degree of M.A.

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9043. Would you give the B.A. all the privileges in the way of the franchise, political and University, which the M.A. now has?—Certainly; it has these in the Queen's Colleges. They have not the Parliamentary franchise; but it makes the graduates members of Convocation if they choose to keep their names on the books, by paying a small annual fee. It does the same in the University of London.

9044. *Mr. Campbell.*—Then you have no sympathy with those who wish the introduction of a lower degree than the present M.A.?—None whatever, except the revival of the B.A.; I do not think the present degree of B.Sc. is of much value.

9045. *Mr. Campbell Swinton.*—Do you think that men of science would be satisfied with what you suggest,—almost no greater prominence given to science in the M.A. degree, and yet no special degree in science?—The B.A. or M.A. degree implies a great deal of science. It implies a knowledge of natural history and physics. Physics is now a very wide subject, and all the branches of physics are taught in the University of Glasgow.

9046. Then you have no sympathy with those who would eliminate Greek from the education of men of science?—Certainly not. I should not wish to see either Greek or Latin replaced by any other subject whatever. I think the training which is given by the study of these languages is inestimable.

9047. And you would not wish to see the amount of study given to them diminished?—Certainly not.

9048. Would you give us your opinion as to the propriety of instituting entrance examinations?—I have long been strongly in favour of instituting entrance examinations, and I moved in the matter in the General Council of Glasgow University several times. I was laid up afterwards from an accident, and my eldest brother followed up the subject, and got a resolution passed by the General Council. It was moved by him, and seconded by Sir William Thomson, that entrance examinations should be instituted; but, by some mistake in regard to transmitting the resolution, the matter lay past for a year or two. Ultimately, it was laid before the Court.

9049. Were the Council unanimous in recommending it?—They were; and the Court also, I believe. I think that was in the autumn of 1875. Since then it has been adopted in Edinburgh, and there is a general consensus now that entrance examinations must be instituted.

9050. Would you have such an examination operate as an absolute exclusion to those who came up insufficiently prepared?—Yes, I should certainly make it absolute that the man who did not pass the examination should not be admitted to the degree course.

9051. Have you considered what degree of proficiency that examination would denote?—I think it would require at first to be made rather easy, and it could be increased in difficulty in successive years, or periods of two years. It ought not to be made high at first.

9052. How high would you make it at first?—I should say, in mathematics and arithmetic, a knowledge of the first two or three books of Euclid, fractions and decimals, the elementary rules of algebra, and simple equations; and in classics, some books of Horace or Virgil, with translation of Latin into English, and English into Latin. This would enable the professor to start from a much higher platform than he starts from at present.

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9053. You have said nothing about Greek?—Certainly; there should be an examination in Greek.

9054. With what degree of proficiency?—The student should be able to read any passage in the New Testament *ad aperturam*, and be examined on such books of Xenophon as he chose to 'profess.'

9055. Where do you contemplate that the young men who are to pass this examination are to acquire the education to fit them to do so?—They will acquire it if it is made known that there is to be an entrance examination; and if Greek is required, it will very speedily be made a branch of study in schools, where it is not now taught.

9056. Do you mean in the primary schools?—Yes, and in those secondary schools from which it has been shut out by the Code regulations and the action of some school boards.

9057. Do you think there are enough secondary schools for the purpose?—There are quite enough secondary schools in the east, south, and west of Scotland for the purpose. There are the High School of Glasgow, a very admirable school at Paisley, very excellent schools in Dumbarton and Greenock, celebrated schools in Irvine and Ayr, a very well-known school in Dumfries; and it is from these that a great many of the University prizemen come.

9058. Do a large number of the students not come from the primary schools?—A few do, no doubt,—not so many within the last few years as used to come, because the primary schools are so much occupied in grinding the pupils in the different subjects in the Code, that they have neglected the higher studies. There is an agitation going on upon that subject at present, and has been going on for a year or two; but even in the primary schools, if there was a modification of the Code so as to discourage the high premiums upon the lower subjects, I consider that most of the masters would be able to instruct their pupils in Latin and Greek.

9059. You consider that even now most of the masters of the primary schools are sufficiently qualified?—I consider that a great many of them are,—I would not say most. We have got into an extremely bad position in consequence of the action of the Privy Council system, which has been most ruinous to Scotland, by separating the education of the poor from that of the rich, and holding out the idea that a man of much lower attainment is qualified to teach the children of the poor. I think that great mischief has been worked in Scotland by the Privy Council system.

9060. But, taking things as they are at present, do you think that the young men who now come up to the University from the primary schools could afford the expense of attending one of the secondary schools before they come to the University, in order to qualify themselves for the entrance examination?—I think many of them could. These schools are pretty thickly scattered over the country, and the towns I have mentioned are within reach of most of the students. It would certainly be necessary to establish secondary schools in many places,—perhaps at Inveraray, and certainly at Oban,—not at Inverness, which has a good school already. Beyond that, the present schools in the south, east, and west of Scotland are sufficient. Dundee has a celebrated school, and the north-east of Scotland is thoroughly provided for by the Dick and Milne bequests. It is in the west and north Highlands where a few schools would be required.

9061. But you do not think that the expense of going to one of those secondary schools would be an obstacle in the way of young men getting the necessary education to fit them to pass the entrance examination?—I think a year at one of those schools would not be an obstacle after they

had gone through the highest course a primary schoolmaster could give them.

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9062. Do you think that a year at one of those secondary schools would enable them to pass such an entrance examination as you have sketched out? That would depend greatly on the knowledge they had got in the primary school?—With many it would, I should think.

9063. That is, for entering the junior Latin and Greek classes?—Yes, for entering the first class in the University, and then care should be taken that the present alphabet class in Greek be abolished. It is simply monstrous that a University should have a Greek alphabet class.

9064. You would contemplate that all the students should be able to take the three years' course by entering at once into what is now the second class, because the first class would be abolished?—Yes.

9065. Therefore the curriculum for the degree in Arts would come to be uniformly three years instead of four?—Yes.

9066. *Mr. Campbell.*—Would you introduce this system at once?—No, not without a year or two of warning. I think it has been announced for October 1877.

9067. *Dr. Muir.*—Some gentlemen have proposed to us that such an examination as you contemplate should be instituted, but should not be required for entering the first year's classes in the University,—that it should be required before a young man could pass into the second year's classes, and that the same examination should be required both from outsiders coming first to the University and from those who had attended the junior classes. What do you think of that?—If you leave it in that state, I think you simply make the junior class in the University a school class. There is a method practised in the Queen's Colleges in Ireland, where they have non-matriculated students,—men who feel themselves not properly prepared, and who come up to the college for a session and take certain classes. They are entered as non-matriculated students, and the next year they come forward and enter as matriculated students; but if that is done they are not allowed to compete for the scholarships or bursaries of the first year, it being considered that, having been in the college for a year, they have an advantage over lads coming from the country who have not been at college, and that they are not like lads fresh from school. If you had non-matriculated students, the objection would be removed that you shut out a man who does not want to take a complete course. Many young men who have no professional views, such as men of fortune who merely wish to have the benefits of the college, would shrink from such an examination. I would enter them as non-matriculated students, and let them pass through, but they should not graduate without having matriculated for the regular classes. I think the objection which has been urged against the scheme would be removed by a plan like that.

9068. *Mr. Campbell Swinton.*—That plan would also meet the case of men who at a somewhat advanced period of life first conceived the idea of taking a University education, and were rather too old to go back to school?—Yes. Sometimes men of twenty-five and thirty have entered the college.

9069. Does it consist with your experience that young men of that age, coming to the junior class, very often become, from their greater maturity of mind, as advanced as their younger competitors who were originally better prepared or more advanced?—Yes.

9070. Would it not be rather hard to exclude them from a curriculum that might lead to a degree?—After a year's work at the college they might enter *de novo*.

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9071. Then that would be very much the scheme which Dr. Muir mentioned?—Yes; but they would pass the entrance examination at the first.

9072. But is it not the case that some of those men I speak of, who only enter at a somewhat advanced period of life, would not be able to pass this entrance examination from the defects of their early training?—Then I do not see any help for that; it is an objection, of course.

9073. *The Duke of Buccleuch*.—Those persons would be the exception and not the rule?—Certainly, quite the exception.

9074. *Mr. Campbell Swinton*.—How would you secure uniformity of the entrance examinations in the different Universities?—I think there ought to be a board constituted for the purpose of examination.

9075. One central board to examine for all the Universities?—No; there ought probably to be a separate board for each of the Universities, because it would entail a great deal of expense on the students if they had to go to a central place from a distance; and I think the boards for the different Universities should arrange (as they might easily do) to strike the standard as nearly as possible at an equality. Something of that sort is necessary, because otherwise the degree would have a very different value in the different Universities. If it were possible, I should like to see the entrance examinations in the hands of the teachers.

9076. Of the professors?—Certainly not of the professors, but of the teachers of the different schools, as in Germany. The question was agitated there for twenty years, and at last the schools prevailed in getting the 'leaving' examination into their own hands, with the assistance of a Government inspector, and now it is not the professors in the college who hold the examinations, but the teachers in the *Gymnasien* and *Realschulen*.

9077. And you would, in Scotland, have a board of schoolmasters?—The teachers in the schools, with the inspector of the district, and, perhaps, a second assessor, which would be the best way; but I am afraid there is very little hope of carrying that.

9078. How many members would you propose that such a board should consist of?—Three or four,—three teachers of the school, representing classics, mathematics, and English, and an inspector.

9079. Would you have the teachers of the district select their own representatives to form this board?—That would scarcely be necessary in many of the schools. It might be necessary in the High Schools of Edinburgh or Glasgow, but in the smaller schools it would not be necessary.

9080. Do you mean there should be a separate board for each school?—Yes; let each school have an examination yearly, and let the inspector be there as assessor to see that the teachers were not trying to keep the boys back unduly; and let the papers be printed, published, and circulated. In that way there would be perfect security that the teachers were not keeping a boy too long at the school.

9081. Do you think an examination of that kind would satisfy the Universities as well as the schools?—I think it ought to satisfy the Universities. The alternative I would propose would be a board consisting of certain professors, and assessors elected by them; and it would be most desirable to give the Educational Institute of Scotland a voice in the appointment of these assessors. It is a chartered body, embraces most of the teachers, and has a claim; it would be of great advantage to give it a voice in such appointments. Let the boards so constituted prepare the examination papers, which would be published.

Let the papers be as like each other as possible over all the Universities. In that method there would be this advantage, that if a lad were rejected it would be less a disgrace to him than if he were plucked at an entrance examination in the University, because the latter circumstance is known to all his class-fellows, and it tells against him in after years; whereas, if he were simply not sent forward from the school, it would be less widely known. Besides, it would save the expense of travelling from a distance to the University seat, if the examinations were held in the schools. In the one case you have only the inspector's expenses, while in the other case considerable expense is laid upon the students. It would also have the effect of preventing what might occur through a feeling of sympathy being excited in the mind of the examiner for a lad who had come a long distance to be examined, who was very anxious about the matter, and whose friends were very desirous that he should pass; because in such a case the sympathies of the examiner might prevail over his judgment.

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9082. When you speak of the inspector in this connection, are you referring to the present Government inspectors of schools?—Yes, I think they might do the work. It would be desirable to limit the expense of working such a scheme as far as possible.

9083. *Mr. Campbell.*—Your proposal is that the Universities, instead of having an entrance examination, should accept certificates from the schools?—That the schoolmasters should have an *abiturienten* examination, the same as in the German schools. Admission to all the Universities there is had by a leaving examination, and the teachers can say to a lad, 'You cannot go forward to the University yet; you must pass another year before you are fitted for it.' Even private students, who have not been at a public school at all, but have been educated at a private school not under Government inspection, or who have been taught by tutors, must come to this examination and get their certificate before the professors dare receive them. I think nothing would tend to elevate the profession of teaching more than a measure of the kind which I propose. It would elevate it a great deal more than mere emolument would do. It gives the teachers in Germany a position and a dignity in reference to the Universities which they do not enjoy in this country; and, after all, the success of a national system is entirely due to the character of the teachers. If you have not a highly educated man, a man educated all round, a man of culture and polished manners, and with a good position, you have no chance of success in a national system.

9084. *The Duke of Buccleuch.*—Are you referring now to the secondary or primary schools?—To the secondary schools, in regard to the examinations.

9085. *Mr. Campbell Swinton.*—And you think there is a sufficient number of such masters as you speak of in the secondary schools to carry out such a scheme?—Yes; and I could name as connected with the schools before enumerated many men of high eminence in scholarship, and in mathematics. These schools have long been celebrated for sending forth a great many of our Glasgow prizemen.

9086. Have you any other remarks to make on this subject of entrance examinations?—I would first wish to obviate an objection which has been put forward. Entrance examinations have been tried, and have been found not very successful.

9087. Where?—By Professors Blackie and Sellar here, and by Professor Ramsay in Glasgow. The result was not at all satisfactory as regards the education of the pupils at the secondary schools. But it

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must be recollected that the examination was not compulsory. The lad who was coming forward knew quite well that he would not be put back to school again if he did not pass; and he had in fact matriculated and paid his fees.

9088. But nevertheless he would do his best?—Probably he would, but he did not come forward with the idea that he would be turned back if he did not pass.

9089. *Sir William Stirling-Maxwell*.—If that fear had been before his eyes, do you think he would have done better?—He would not have come forward at all; he would not have left school. As it is, there are a great many lads who desire to get away from school to the college, to be called students, and to wear the costume. There have been many cases in Glasgow where pupils went to college against the strong remonstrance of the teachers, some after two and some after three years, instead of taking the four or five years' course which they ought to have taken at school, and simply from a desire to have a share in the election of Lord Rector and all the other glories of student life.

9090. And to be under less strict discipline?—Yes, perhaps to be under less surveillance. All that would be done away with by the plan I propose; and if a student knew he might be rejected, he would come forward in quite a different state of preparation. I believe the reason why entrance examinations have failed is simply that they were not compulsory; and I think Professor Ramsay has made too much of the failures at his tentative examinations.

9091. Do you not think that if these examinations had been compulsory, it would have prevented a good many boys from going to the University at all?—I do not think so. I think that the field for all the learned professions, for the civil service, and so on, is such that they must have the education; and they would know when this examination was promulgated, that they could have the necessary preparation for it at the secondary schools. I have no doubt whatever that the plan would not operate in the way you suggest.

9092. It would not so operate upon those who are going into the learned professions; but with respect to young men intending to pursue a mercantile career, it might make all the difference of going or not going to the University. Do you think that is not possible?—I do not think that is the objection, as regards mercantile men. The objection, as regards them, I believe, lies in this, that mercantile men themselves, who are taking young men into their offices, think that to have had a University course is rather injurious to them. They have made fortunes themselves without having had a University education, and they think that fortunes may be made in the same way by their sons. It is a singular fact that in Glasgow, with all its increase of population, not more students attend college now—I refer to the sons of merchants—than there did fifty years ago. That arises simply from the absurd tradition, that, to be a successful manager of a business, a young man must begin at the very lowest point, and do the work of a servant or a porter. During the last twenty years I have spoken on many occasions against Glasgow merchants for cherishing this absurd tradition. It has disappeared in Germany; and I was told at Elberfeld, by teachers of the schools, that it is constantly the practice for the merchants at that great seat of manufacture to ask for the best of the students for their offices.

9093. What you have told us is interesting, but it is not the point I wished to place before you. Do you think it is not possible that amongst those who are preparing for a mercantile career, a small number, according to your view, would desire to have University education? Might

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it not deter those lads from going to the University if they found that the stringency of the entrance examination would throw their entrance into the University a year farther back than their parents wished it to be placed in their lives?—It might so operate in a few cases, but it would be a simple matter for persons in that position of life to acquire the necessary amount of knowledge. Or a compensating system might be introduced. If a man was unfit to pass an examination in Euclid or algebra, he might be taken on English literature or other subject.

9094. You think that the objection which I have mentioned, though it might prevail for a few years, would not be permanent?—I think it would not be permanent. But there will always be persons who are not able to pass. Some are 'plucked' many times in succession, and at last leave without a degree.

9095. *Mr. Campbell.*—Is the fact to which you have referred, that there has been no great increase in the number of students from Glasgow at Glasgow University, not to be accounted for in this way, that Glasgow merchants think their sons can prosecute their education better away from home than at home with all the distractions of family life?—That does operate to a certain extent. The fashion of sending lads to the great English schools has been increasing of late years, and within the last ten or fifteen years largely in the West of Scotland. I think my statements refer to a period even earlier than that. The principal cause, I believe, is what I have indicated; and I think it is a pity that these young men do go away, as they would get a much better education at our college, while our teachers as a rule are more efficient than in England.

9096. *Dr. Muir.*—Do you apply that to the first-rate English schools?—I do, certainly.

9097. Rugby and Harrow?—Yes, certainly. I think the style of teaching is quite superior in Scotland in every department to the teaching in the same department in England, and it is certainly not inferior to that of Germany.

9098. *Mr. Campbell Swinton.*—Do you apply that even to scholarship?—No; I mean the art of communicating knowledge; producing better results—a wider training.

9099. *Mr. Campbell.*—My question had reference not to sending them to England or to any particular place, but to sending their sons from home. Is that not the reason why they do not send them to Glasgow University?—Simply to be away from home?

9100. Yes.—It may be. That may partly operate. It ought not to operate. I have not the high opinion many have of the great schools; I regard our own day schools and home influences as much superior.

9101. *Mr. Campbell Swinton.*—I suppose you do not think that the Glasgow merchants, as a body, are not so well educated as their predecessors were half a century ago?—I think there are many who are better educated, but, as a rule, they are not better educated than were their predecessors, as regards passing through the University.

9102. They must be worse, according to your showing?—I should be sorry to say they are worse. You will observe that my censure has reference only to so few taking the University course. There are a great many opportunities of education now-a-days besides the education of the college; but as regards a sound general education, such as our college gives, I do not know there is any improvement as regards the numbers who pass through it; the education had in England I do not regard as a good substitute.

9103. *Mr. Campbell.*—Is not the want of some systematized course of

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summer study alleged as 'a reason why a greater number of Glasgow lads do not attend the University?—I know it has been put forward as a reason, but I do not think it operates; because amongst the wealthier classes nearly all the families are out of town during the whole summer. I do not think it can operate except in a few cases.

9104. *Mr. Campbell Swinton.*—Do you think that any new chairs are required in the Universities generally, and in Glasgow in particular?—I should not be prepared to recommend any new chairs; but I think that both Glasgow and Edinburgh are very much in want of lectureships. There are two lectureships in Glasgow,—the Waltonian lectureship on the eye, which is endowed, and a lectureship on pathology,—and there are one or two in Aberdeen, but there is nothing of the kind in Edinburgh. They might last only for a time, and the lecturers might be changed, so as to give a variety and new interest. Some professors get into a routine, and are slow to introduce new ideas and methods.

9105. You would not make attendance on lecturers any substitute for attendance on professors?—No.

9106. Would you make them compulsory on the students?—No; entirely voluntary.

9107. And you think the students would attend?—Yes.

9108. Is it consistent with your experience that good attendance takes place in any classes not forming part of the curriculum?—It depends very much on the lecturer, and the feeling the student has of the use the class would be to him in preparing for his degree examination. What is very much wanted in Glasgow is a lectureship on mineralogy and mining connected with the University. These two subjects cannot be overtaken by the Professor of Geology and Natural History—he has not time to do so; but so zealous is he, and so anxious to supply the defect, that he employs assistants at his own expense to lecture on lithology and chemical geology, and himself gives lectures on mining, with practical instruction at the mines and coal pits. It is probable he could not have done all this without the aid of the Gillespie endowment of £200 per annum. I should not be prepared to recommend a professorship. The Faculty is large enough already, and it would answer every purpose to have a lectureship on mineralogy and mining. This would, of course, have no connection with the degree.

9109. What salary would be sufficient for such a lecturer?—I should think £400 a year would be sufficient.

9110. That is more than the professors have?—Very few of them have so small an income; less than £400 a year would scarcely be an inducement.

9111. Are there any other departments in which you think similar lectureships should be established?—It has been contemplated in Glasgow to separate natural history from geology; but it is desirable, if possible, to have the two combined, palæontology being now so important a part of geology. Hence, I suggest they should be retained as one chair as at present, and that a lectureship on mineralogy and mining should be instituted. In connection with it there should be a laboratory, where specimens of the different ores might be tested, and experiments tried to find out the best methods of reduction. The Tharsis Company keep a regular chemical analyst at their office in Glasgow, who is employed in testing the qualities of the different ores. A collection of mining machines, models, tools, drawings, etc. ought to be formed in connection with such a lectureship.

9112. *Dr. Muir.*—Do you not think that the department of zoology might be cramped by being added to that of geology? Are there not

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many portions of it which must be studied, and which have no specific bearing upon geology?—There certainly are; but the same professor might easily embrace both. It might be desirable, if there were funds, to have a separate Professor of Zoology; but there is always the money difficulty in cases of this kind.

9118. *Mr. Campbell Swinton*.—Are there any other branches in which you think lectureships ought to be established?—Chairs of education ought to be established in Glasgow and Aberdeen, similar to those in Edinburgh and St. Andrews, with a regular course of lectures every winter; and attendance on these ought to be required of all teachers. If the subject were properly taught, it would go into the best methods of teaching and the reason why those methods are the best, founding on the philosophy of the human mind, and a knowledge of the laws of mind,—how to present a subject to the learner in the best way, and so on. The chairs ought to be associated with a clinical school,—a school into which the professor could go and teach a class himself to show how it ought to be done, where he would give the intending teacher a class to teach in his presence, and at the end of the lesson point out any mistakes he may have made in his method of teaching. There is such a class in most of the German *Realschule*.

9114. It might be done in connection with the existing Normal Schools?—Yes; the professor might use those schools.

9115. *Sir William Stirling-Maxwell*.—Is it not done in connection with the existing Normal Schools?—The Normal Schools take up a great deal of time with mere school management and school organization; but the chair I propose should be entirely devoted to the intellectual aspects of the subject, without any reference to school organization or plans, but simply how to communicate knowledge in the best way.

9116. Is not the teaching of the junior classes part of the business of the students in the Normal Schools at present?—It is. But a Normal School is a very inefficient preparation for a teacher. A University education, I hold, is the education every teacher ought to have, and formerly the teachers in the parish schools all had it. A man was content to teach in a very humble sphere,—a college educated man,—because he could rise; and it is well known that many of our professors have risen from the position of parish school teachers. Mr. Robert Buchanan, late Professor of Logic in Glasgow College, was one example; Dr. Gunn, of the Edinburgh High School, was another; and many other teachers might be named who were in the early part of their lives teachers in humble schools. It is very desirable that that system should be again introduced, and that all our teachers, from the lowest to the highest, should be University men. No measure would tend more to raise the status of the teachers than the certificate of the Professor of Education for knowledge of the science and skill in the art of education.

9117. *Mr. Campbell*.—Would you make attendance upon his lectures imperative?—Yes, upon all intending to become teachers.

9118. Even for preliminary schools?—Certainly; for there it is most required.

9119. And what about the schoolmistresses?—Upon schoolmistresses also. The reason why I say so is, that to teach the children of the poor, who have been uncared for by their parents, is far more difficult than to teach the children of the better classes. It requires the utmost skill to deal with pupils of that class, and I would have the most highly educated men that could be got for teachers in the humble schools.

9120. *Mr. Campbell Swinton*.—To do so, it would be necessary considerably to increase their emoluments?—It would not be necessary to

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do so if there was a graduated system by which the teachers could rise from the humble school to a situation in one of the higher schools.

9121. Are there a sufficient number of positions of that kind in Scotland for them to rise to?—I have mentioned a good number of important schools; and if you established a few more in the north and north-west, you would have a good number of prizes. And then there are the chairs in the colleges. Allow me to refer to a subject which I should have brought in before, with regard to the examination for degrees. I think it is a pity that the colleges have limited the choice of examiners to graduates. There are a great number of distinguished men in Oxford and Cambridge now, who have gone from our colleges on scholarships or exhibitions, without quite finishing their education with us; and they have therefore not graduated. It is a pity that such men should be excluded from election to the examining body for degrees.

9122. But by opening the position of examiner to them, you would be diminishing the number of prizes for Scotch graduates?—These are all Scotchmen.

9123. *Duke of Buccleuch*.—They have taken degrees in an English University?—Yes, and many of them are Fellows of Universities.

9124. They are graduates, but not graduates of any Scotch University?—Yes.

9125. *Dr. Muir*.—And therefore not eligible?—Yes. It is a regulation that can be easily altered.

9126. *Mr. Campbell Swinton*.—Are you aware whether there are any deficiencies that exist with regard to suitable provision of apparatus, especially for the scientific chairs?—I do not know there is much now in the chemistry and natural philosophy classes. Sir William Thomson has a yearly grant, for apparatus, of, I think, £100 a year. I do not know that engineering has any. It would be highly desirable that some such collection of apparatus as exists in the *Realschule* and polytechnic schools of Germany should be provided in the college,—models of machinery and apparatus, specimens of different kinds of tools, locks, chisels, and so on. In the Hanover Polytechnic school there are 9000 specimens of different kinds of tools and mechanical inventions of all kinds.

9127. Is that not rather more for the school than for the University?—It is entirely for the engineering department. The objects are brought out by the Engineering Professor, and their construction and use explained; and sometimes a selected number of students are taken into the museum by the professor, and the articles shown to them. I referred before to models connected with the mining lectureship.

9128. What is your opinion with regard to the present length of the sessions? Do you think they should be prolonged?—I do not think it would be at all desirable to interfere with the present arrangements. The habits of the Scottish people are so connected with these that it would be very difficult to change them, and very apt to injure education. The winter season is the idle season in farming, and a great many farmers' sons, who are required at home in summer, come to college in winter. A great many teachers also get substitutes for six months of the winter, to enable them to attend college; and in that way, from year to year, they get through their college course. When we consider the highly desirable nature of the education for our people, and the desirableness of keeping up the old connection between our middle classes and the University, we shall see that it would be a very serious danger to interfere with it, or to alter the terms. But, again, we have the chance of getting better men for our chairs when they have such a leisure as six

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months in the summer. Their work is extremely heavy while it lasts. Upon these grounds, then, I would be disinclined to alter the length of the session. In regard to summer sessions, I would make the same observation. There was an agitation in the Council in regard to summer sessions, but I never saw my way to do anything to promote it. The habits of the Glasgow people are such that their sons could not very well take advantage of it, the families being at the coast, and very few of the young men in offices would be able to do so during the day owing to the distance.

9129. Are there in Glasgow any tutorial classes in summer?—Not that I know of. There may be.

9130. *Dr. Muir.*—Why should not the summer be utilized, under a tutor, for those who need it?—There would be no objection to that arrangement if you do not call upon the professors to do it. What I object to is making it a condition of the professorship.

9131. *Mr. Campbell.*—Was there not a tutorial class in Glasgow last summer?—There may have been.

9132. *Mr. Campbell Swinton.*—Of course you would not have any objection to that if the students came forward to attend?—Of course not.

9133. In regard to the expediency of introducing extra-mural teaching in the Faculty of Arts, on somewhat similar principles to those on which it already exists in connection with the medical chairs, what have you to say?—I am not sure that I quite understand what is meant by the question.

9134. You are aware that in Edinburgh, and, I believe, in Glasgow, the University Court has power to authorize certain men, not professors, to teach, and has power to allow attendance on their lectures to qualify to a certain extent as part of the course, instead of attendance on similar lectures in the University?—Yes.

9135. Do you think that anything of that kind is desirable in connection with the Faculty of Arts?—I have not thought much on the subject, but I do not think it is desirable. When an appointment is made to a professorial chair in the college, I do not think it is desirable to expose the occupant to competition on all hands in the same subject.

9136. Might not one of the evils of doing so be this, that the professor on the one hand, and the extra-mural teacher on the other hand, would be apt to devote themselves to cramming men for the examination rather than to giving them sound general teaching?—I should be afraid it might come to that.

9137. *Dr. Muir.*—Would that system not be tantamount to the German system of allowing men licensed by the University to teach independently of the professors?—I think it would be less an evil if it were done inside, if it were intra-mural teaching, and if they were licensed.

9138. Is it not the case that the *privatim docentes* in Germany do not teach in opposition to the professors, but rather in supplement?—In supplement rather, I believe. What I should like to see would be supplementary teaching inside the college, by persons licensed by the Senatus as qualified to do so. The teaching power in some of our colleges is too small.

9139. *Mr. Campbell Swinton.*—Do you mean what you referred to before—men giving lectures on special branches of a general subject, attendance on which would be optional?—I do not mean quite that. I was referring rather to tutorial lectureships. I mean that a young graduate, licensed by the Senatus, should have liberty to teach in the college; and many pupils would go to him who felt they were not quite

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up to the work of the class. If there were a number of those teachers inside the college, they would be completely under college control; they would interfere less with the professors; and in that way there would be raised up a sort of learned class, in which we are deficient in Scotland, and out of which we might get our teachers for the secondary schools.

9140. What you speak of does exist in connection with Professor Ramsay's class? His assistant does teach to a considerable extent in that way?—Yes; the class is subdivided, and he takes a portion of it under the superintendence of Professor Ramsay.

9141. *Mr. Campbell.*—Are you aware that this year he has at least two additional tutors?—I did not know that.

9142. Do you think that practice might be extended?—I think it might be extended very usefully, because the teaching power is too small in some of our colleges.

9143. *Dr. Muir.*—But the kind of instruction to be given by those licensed graduates would be of an elementary kind, to bring on such students as might not be very well up in their subjects, rather than lectures on more recondite and abstruse subjects, which is what I understand is done in Germany. You contemplate that the function of those men should be to bring on the student?—I think that is the most useful way in which it could be done. With an entrance examination, and the improvement that would arise therefrom, I think the professor should carry the students as far as possible into the higher subjects. It is not to be desired that this highest work should be in other hands than those of the professor himself.

9144. *Mr. Campbell Swinton.*—Are there any other points that you would like to bring under our notice?—I do not think there is anything else.

9145. *Dr. Muir.*—With regard to one of the points you spoke of, do you think that the ratepayers of the country would not object to the expense of the higher education, if it were given in every parish school throughout the country? If you have a higher class of schoolmasters, you must pay them more highly—would not that be necessary?—I do not think it would; it need not increase the expense. If a man has a prospect of rising, he will begin at a very low point in the system. If he has the chance of his abilities being properly estimated, he will be satisfied with a smaller income, hoping to get promotion afterwards; but if you have separate teachers of poor and rich, and men over the lower schools not acquainted with the higher subjects, and so a hard-and-fast line drawn, so that the primary teacher cannot rise to a higher school, you must pay him more highly, because he has no hope of getting beyond that line. But if the views which I have put forward were carried out,—if you had a chair of Education, and a certificate from that chair,—if you had the rigid provisions of the Code abolished, and the system made one throughout, the teachers would be glad to enter at the lowest point, and take such salary as there was, under the animating hope of rising if they distinguished themselves.

9146. Have you any suggestions to make regarding the Faculty of Theology?—No; I have not thought of any defects in the Faculty of Theology in our colleges.

9147. Have you considered whether the Professorships of Theology should be thrown open to members of all the Scottish Presbyterian Churches, with or without any definite subscription, or any definite confession of faith?—I certainly think they ought not to be opened in such an absolute manner; there ought to be a declaration of the candidate's belief in Holy Scripture, and in the leading doctrines held by those

Presbyterian Churches. It would probably be quite sufficient if he gave a declaration of his belief in Scripture, and in the doctrine of justification by faith. These are the essentials. As to signing any confession, I regard that as a mere sham, because a man who has no conscience would sign anything; but some security ought to be had in regard to those professors.

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9148. Then, with that reservation, you think that members of all the Presbyterian Churches might be admitted to those chairs?—Yes; certainly.

9149. *Mr. Campbell.*—If you think a man with no conscience will sign anything, will he not declare anything?—He will sign with a reservation, or without reading.

9150. Would he not declare with a reservation?—You could take down his solemn declaration, and have him hard and fast.

9151. Suppose you had theological professors belonging to all the different Presbyterian denominations, what students do you think would attend?—In a case of that sort there would be no necessity for the separate Presbyterian Colleges which we have—the United Presbyterian Hall and the Free Church College.

9152. Do you think that the Established Church, the Free Church, and the United Presbyterians would be content to have their students attending the lectures of men for whose principles they had not the same security which they believe they have now?—I do not think they would, until the Church of Scotland is disestablished. I am not speaking for or against establishments, merely that those bodies would not be satisfied in the present state of things; if they were agreed upon the question of establishments, they would soon come to find they were one in doctrine.

9153. *Sir William Stirling-Maxwell.*—You used the expression that you had a man under a declaration hard and fast. Do you mean that you consider a declaration a stronger bond than signing the Confession of Faith—I mean, a declaration of general adherence to the supposed doctrines of a particular Church?—Yes; I mean that if you put before him a few definite and leading propositions, such as I mentioned,—the authenticity and truth of Holy Scripture, and the doctrine of justification by faith,—an honest man would not make a declaration of belief if he did not mean to adhere to it. If you have inquired into a man's previous character, and obtained from him such a declaration, you have all the security that is possible, for a given time. Any man's opinions may change, and if he is honest he will make this known, or give up his chair.

Professor EDWARD CAIRD, examined.

9154. *Mr. Campbell Swinton.*—You are Professor of Moral Philosophy in the University of Glasgow?—I am.

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9155. You were originally a Glasgow student?—Yes. I got a Balliol Exhibition, and went up to Balliol College, Oxford. I afterwards got a Fellowship in Merton College, where I was tutor for two years, and then I was appointed to my present chair, which I have held for about ten years.

9156. We should like to be favoured with your opinion as to the constitution and powers of the University Court?—I should like to say a word about the number of the Court. I think it is extremely doubtful whether there would be any gain in increasing that number. It would to a certain extent lessen the feeling of responsibility on the part

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of the members, and their interest in their duties. The main argument which I have heard in favour of an increase is that the Rector is very often absent, and that therefore the number is reduced to six, which is just one more than are necessary for a quorum; but I think that the Court on the whole has worked very well as it is. At the same time, if it is to be increased, I think we should consider in what direction it most requires strengthening. The direction in which it seems to me to be weak, is insufficient representation of science. It is very strong in members who represent either local interests or the general public, but it has only one member who distinctly represents the *Senatus*. The Senate also elects the Dean of Faculties, but it has been the rule to choose some distinguished citizen to whom the University wishes to pay honour, rather than as a representative of academic interests. Therefore the strictly scientific element is reduced to the representative of the *Senatus*. The Principal also may sometimes be a representative of the same interests.

9157. By 'scientific' you mean educational?—I mean persons who have special knowledge of the subjects taught and special sympathy with scientific teaching. Now I cannot say anything against the present Court, which I have no doubt has acted judiciously; yet at the same time, on the occasion of the election of a professor, one always hears of all kinds of extraneous influence being used, political and ecclesiastical. I know, as matter of fact, that such considerations have often been pressed upon members of the Court, and it must be very difficult for them to resist unless they have some very strong interest on the side of science to counteract that influence. Persons whose main interests are connected with politics, or with some great ecclesiastical institution, naturally carry their party feelings into the Court, or at least are more likely to be influenced by such considerations than men of science strictly so called would be; and, therefore, it would be desirable, if possible, to strengthen the scientific element.

9158. *Dr. Muir*.—You use the word scientific in a purely general sense,—you do not apply it to natural science?—In a purely general sense.

9159. *Mr. Campbell Swinton*.—How would you strengthen the scientific element?—By giving to the Senate the power of appointing additional members,—not necessarily members of their own body. I cannot say I am prepared to define the persons to whom I would limit their choice; but at the same time I should wish them to choose out of a certain class of persons who could be described as scientific men.

9160. Then you would make the Senate the electors of those persons?—I merely suggest that as the only way that occurs to me out of the difficulty at the moment. I have no desire to claim additional power for the *Senatus*, but merely to add to the scientific element in the Court.

9161. You are aware there has been a strong claim urged by the General Council to have additional representation in the Court?—Yes, I am aware of that. I think it is doubtful, for several reasons, whether that claim should be granted. The General Council is a body that is very apt to be influenced by any current of opinion outside, either political or otherwise, and it is a body that has not hitherto taken a very large interest in the affairs of the University. Individual members of it have done so, but the meetings in general have been very poorly attended.

9162. Is that not a necessary consequence of the members being so much scattered?—Yes; but at the same time the meetings have been very small, even when you consider the number of graduates who could attend from the neighbourhood of Glasgow. Occasionally there is a larger attendance when an assessor is to be appointed; but if the members do

not take sufficient interest in the affairs to come to the ordinary meetings to express their opinions on general University subjects, I think it is very doubtful whether you should induce them to come by giving them additional power.

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9163. And you do not think that the object which you desire, viz. to have science better represented in the Court, could be secured by allowing the Council to be the electors, but limiting the class from whom they were to elect?—I think it possibly might, but I have not considered that subject.

9164. *Mr. Campbell.*—Suppose the Council were given additional influence in the Court, would their representatives not be likely to be men of scientific proclivities?—I doubt it. I do not think you could calculate on that unless you limited their selection in some way; I think the members chosen by them would be more likely to represent the prevailing political feeling of the time.

9165. *Dr. Muir.*—Or ecclesiastical?—Yes.

9166. *Mr. Campbell Swinton.*—I do not think you have given us any definite opinion as to what number the Court should consist of?—I think it would be better, on the whole, to leave it as it is, but if it were increased I do not think that at the very utmost more than two members should be added to it.

9167. And, according to your view, it appears that those two must be appointed by the Senate?—I should not object to the addition of another member chosen by the Senate, and the Chancellor.

9168. But looking to the Scottish Universities generally, do you think it would be of any practical utility to make the Chancellor a member of the Court? You have the Chancellor resident in Scotland a considerable part of the year, but do you think that the other Universities would derive much benefit from having their Chancellors members of the respective Courts?—As the Chancellor is elected by the Council, I think his appointment would be the best way of giving an additional representative to the Council.

9169. But in the case of St. Andrews and Aberdeen would the Council derive much benefit from having the Chancellor a member of the Court, considering that in both cases he is a man who could very seldom come down to the meetings?—Then they would need to elect next time with a view to that office.

9170. What have you to say with regard to the powers of the Court?—I have very little to say on that subject, except that there has been in Glasgow a difficulty on a question of law, which I presume has been already brought before the Commission. The University Court of Glasgow have interpreted their powers in such a way that they cannot exercise anything like a censorship over the University,—that is to say, in case of any difficulty arising about a professor, they apparently demand that some one not belonging to the Court should come forward as the accuser.

9171. That is the Glasgow interpretation?—Yes. I believe that a different interpretation has been adopted elsewhere; but in Glasgow they demand that some one out of the Court should come forward as the accuser. Well, the only persons who could come forward are either the professors—to whom it is extremely difficult to act against a colleague, especially if he happens to be one for whom otherwise they have a great respect—or the students, and you cannot expect the students to do it. They may be very indignant at the loss of their time in particular cases, but every student feels that he would make himself a marked man if he took part in such a movement.

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9172. Do you think that the Glasgow University Court have rightly interpreted the Act in considering an accuser necessary?—I think the expression is such as to make their interpretation possible, and it is very desirable that it should be declared whether it is the right interpretation or not.

9173. And you think it desirable that some liberal interpretation should be taken,—that an accuser should not be required?—Yes.

9174. Have you any other observation in regard to the powers of the Court?—None.

9175. You have no complaint to make as to its having exercised too great control over the Senatus?—No, I do not think so. Of course there have been objections to some of the special steps which the Court has taken, but I do not think there has been anything like a feeling that the Court has overstepped its powers.

9176. Do you think that the functions of the General Council should be in any degree increased?—There are various claims put forward on behalf of the Council, such as the claim for additional representation, on which I have already expressed myself, and the claim for liberty of assembling at other times, and specially of assembling when any matter of interest has occurred. I have no great objection to allow the Council to have more meetings if a reasonable number will attend them; nay, I think such meetings would be very desirable if you could secure a sufficient attendance, but I think they should be *stated* meetings. It would be very objectionable to allow meetings to be called *pro re nata*. Academic affairs are not in general of such a nature that they require to be attended to at a moment's notice, and if they do, the Court and the Senate are the proper bodies to attend to them. I think the General Council might be used for a wrong purpose if *pro re nata* meetings were allowed. The only very largely attended meeting at which I have been present, was a meeting upon a question with which the Council had nothing to do—to discuss the religious clauses of the Education Bill; and if meetings could be summoned specially to discuss such questions, it might also lead to the introduction of a false element into University arrangements. Anything that can be done to increase the interest in the proceedings of the Council, and give them the opportunity of discussing and making representations upon University matters, is desirable; and, so far as I know, all their representations to the Court and to the Senate have been attended to, and very often important results have come of these representations; but I do not think the Council should receive any kind of administrative power, because obviously it is not a body fitted to exercise direct control over the affairs of the University. I may say that it is a very small and a very fluctuating body who attend the meetings.

9177. That rather points against what you are willing to concede,—that they should have a greater number of *stated* meetings?—I do not wish to check any interest in the proceedings that may exist. On the contrary, I should very much desire that a greater number of graduates would take an interest in University affairs.

9178. Do not the meetings which take place once every half-year afford sufficient opportunities for the Council ventilating their views?—I think so, on the whole; still, I would not object to an additional meeting, if it was held at a fixed time.

9179. *Mr. Campbell*.—It has been stated to the Commission, in support of the idea that there should be means of holding special meetings, that in last session of Parliament a Bill was introduced with respect to female education in the Universities. That Bill was withdrawn, so there was no need for the University to take action; but supposing it had been per-

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sisted in, it was said that it would have been a great misfortune if the Council had not had the opportunity of expressing their opinion on the subject.—If that Bill is to be considered a great danger, I should think that the Senate and Court are quite capable of dealing with it. As matter of fact, representations were actually made against it by the Senatus.

9180. *Mr. Campbell Swinton*.—In short, you think that the Court and the Senatus are sufficiently vigilant bodies to attend to any matter of emergency that arises between the meetings of General Council?—Yes.

9181. Would there be any objection to the General Council meeting on the occasion of a vacancy in the office of assessor or Chancellor?—No; I think not. It is very desirable that anything like a long canvass on the occasion of the election of Chancellor or of assessor should be avoided.

9182. Besides the evils of a long canvass, might there not be an inconvenience in the non-existence of a Chancellor for perhaps a period of six months, considering that his assent is required to measures which the Senatus desire to prosecute as improvements?—Yes. I mentioned the evils of the long canvass, because the Parliamentary elections are such serious things that one would not wish to have any more of such contests if it could be helped.

9183. There are several other claims which the General Council have put forth. They want the power to adjourn their meetings.—I think that would be undesirable. The effect of it would be, that the attendance would become still smaller, because a number of gentlemen, country clergymen and others, now make an exertion to come to the meetings; but if the meeting was adjourned to the next day, I have repeatedly heard such persons say that it would be impossible for them to attend.

9184. *Mr. Campbell*.—Have you ever known an occasion when a day was not long enough to dispose of all the business before the Council?—Never.

9185. *Mr. Campbell Swinton*.—We should be glad to hear your views as to the course of study and regulations for graduation in the different Faculties?—The great question is between the creation of a Science Faculty and a considerable extension of the Arts Faculty. The chief argument for the extension of the Arts Faculty is, that it has generally been thought desirable to include in Arts all subjects of general culture.

9186. By Faculty you mean here rather the curriculum?—I understood the two things were to a certain extent bound up together. What I meant by the extension of the Arts Faculty was, that all subjects of a general scientific nature, all subjects not connected with the practice of some profession, should be included in one faculty, and should form the subjects of study for one degree. That is the practice at Oxford and Cambridge, and I believe it is the practice at most Universities out of this country, that the Arts degree should be the stamp of general eminence in all subjects of liberal culture. The arguments against the extension of the Arts degree have been of various kinds. It has been argued that the present subjects form the natural basis of all liberal culture,—the subjects, in fact, that every educated man ought to know; and it has also been argued that they afford a better training for the mental powers than any other subjects. I think that neither of these arguments holds good. When you speak of giving a general education to the mental powers, it depends on what powers you mean to educate. All science has a definite relation to the training of particular powers, and the sciences of observation have a special value of their own in education. It has been said that these subjects cannot be so taught as to give as good a training as is given by languages and by mathematics and philosophy. In fact, one sees examples of the opposite

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in the University every year. There are many men whose intellectual character has been determined by the natural sciences and the sciences of observation, and who can quite hold their own with those who have received their intellectual training from other subjects. As to the theory that there are a number of subjects which every educated man ought to possess, that has become utterly absurd in modern times; for, on that theory, a properly educated man should know all general science before he enters upon his special department; but, of course, to know all general science is, in the present day, impossible. It was possible when the Arts degree was founded, for it then included all study that was not strictly professional. I think, therefore, that on neither of the grounds which have been stated can the limitations of the Arts degree be defended. On the other hand, it is clear from the experience of Glasgow and other Universities that the Arts degree does not afford sufficient variety for all kinds of ability. I often find extremely good students in philosophy who are totally void of the talent for mathematics. They find mathematical study very laborious. They may gain something from it, but they gain comparatively little as compared with what they might gain if they studied biology, or some other subject for which they had a capacity. Classics may be viewed as a universal study. There are very few who have not some power of learning languages, and who might not study languages to some extent with advantage, unless their early training in these subjects has been utterly neglected. But when you come to mathematics and natural philosophy, you come to subjects which imply a more definite bent of intellect. I think, therefore, that it would be a great advantage if we could bring some biological science into our curriculum, and also if we could have a history department.

1917. *Dr. Muir.*—Which of the biological departments do you refer to?—I was perhaps thinking chiefly of the great advantage that students of philosophy would gain from a knowledge of physiology. It has been said, in answer to this, that students find a difficulty in choosing a line of study at the beginning of their curriculum. That may hold good for the first year or two. When they come to the University they take the classical department, and they then begin to look around them, and are quite fit to choose what they are to do next; and I think it extremely desirable, when a young man has reached the age of twenty, that you should give him every freedom to study what he likes best, because he will probably gain most improvement by studying that. The question then is, whether you are to have the present Arts degree with alternative courses, and make the Arts degree include all liberal study, or at least considerable specimens of every kind of liberal study, or whether you are to have a special Science Faculty and a special Science degree. The demands of the natural sciences have now come to be such that they cannot be neglected, and you must either admit them or else give them a separate standing. I myself would prefer that the Arts degree should be enlarged and alternative lines of study given; but if it is not to be enlarged all round, I should very much object to partial enlargements of it. That is to say, I should object to taking in, *e.g.*, history and not biology, or any measure of that partial kind. I should very much object to throwing an additional class or two into the Arts curriculum. I do not think it would do any good to leave out the whole department of natural science and take in history, for that would be to enlarge the degree and at the same time to forget the side on which it most requires to be enlarged. If you adopt the principle of establishing a separate Science degree, you cannot put more classes into the Arts curriculum. The students have quite enough to study at present, and to put in single alternative classes would not

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attain any desirable end. If you keep the present Arts degree, we must rather look forward to the creation of a number of separate degrees in special subjects,—degrees in law, in biology, in geology, and so on, with separate courses of study.

9188. *Mr. Campbell Swinton*.—Would you have a different curriculum for each of those different degrees, or would you have a common basis for them all?—The present Science degree in Glasgow, the B.Sc., introduces a number of alternative courses on a basis of classes taken out of the Arts curriculum. Generally there are four or five classes taken out of the Arts curriculum,—sometimes more and sometimes less,—and then the special subjects. I believe that degree to be of considerable advantage, though it seems to include too much of the Arts basis to satisfy the demands of special science. One thing I would like to say about the B.Sc. of Glasgow is, that it is a possible degree for the ordinary student to attain. The degree called B.Sc. in Edinburgh is not a possible degree for the ordinary student to attain,—it is a special distinction. Now, if you are to have a Science Faculty, you must provide a degree which the ordinary student can be expected to take, and which will stand to his course in the same relation in which the M.A. degree stands to the course in Arts.

9189. Do you think that the B.Sc. in Edinburgh is a higher or more difficult degree than the M.A. degree?—I should think so, from looking at the requirements. I have not examined the Calendar recently, but it seemed to me that the demands were very high, and not such as the ordinary student might be expected to meet; but that might be owing to my ignorance of those particular subjects.

9190. I should like you to explain a little more carefully what kind of curriculum you would require for those separate kinds of degrees which you indicated—in law, biology, and geology—still keeping up the M.A. as the existing degree? Could you indicate, without tying yourself to particulars, what kind of curriculum you would suggest for those different degrees?—In the first place, what I desire would be to keep up the Arts degree and make it the general degree; but supposing it is to be given up, you must have a certain limited basis of Arts subjects, such as perhaps you could get through in a year, and then give the whole of the rest of the time to special departments.

9191. But taking your first alternative, keeping up the present Arts degree, you would give some alternatives as to the branches to be studied?—Yes, I would include several departments like our present departments. I would include a biological department, taking in botany, zoology, and physiology.

9192. And you would allow the student to substitute that for what?—For the mathematical department or the philosophical department.

9193. *Dr. Muir*.—Retaining the classical?—Or even for the classical after a certain minimum. I think the classical department might be sufficiently provided for by the entrance examination, and in that case you might allow a free selection.

9194. *Mr. Campbell Swinton*.—You would not allow a man to take any degree without some knowledge of classics, whether he had attendance on classics or not?—I think he ought to know at least some Latin.

9195. You are not so sure about Greek?—I am not so sure about Greek. I think he ought at least to pass an entrance examination which would include Latin.

9196. Assuming for the moment that there is to be a separate degree in Science, would you contemplate the possibility of a man becoming an

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M.A. without passing in Greek?—Certainly, if he took other subjects. I think you must contemplate it, if you are to include the kind of men for whom those who are specially interested in natural sciences wish to provide.

9197. But I am putting it that there is to be a separate Faculty of Science and a separate Science degree; in that case would you allow the M.A. degree to be attained without a knowledge of Greek?—I understood I was speaking on the hypothesis that all the subjects were to be introduced into the Arts degree.

9198. But take the other hypothesis, and suppose there is to be a separate degree of Science?—Then, of course, if you leave the Arts degree as it stands at present, you would still insist upon all students taking all the subjects. Whether that should be insisted upon for the B.A. degree is another point, but for the M.A., if you are not going to give alternatives, I don't think you should leave out anything.

9199. And you would not have alternatives unless you had such a breadth of alternatives as to make the M.A. represent science as well as literature?—Yes. One of my reasons for that is, that the other subjects are already represented in the present course. For instance, you have something like history already. You have the history of English literature, and the philosophy classes have something kindred to history in their subjects. Therefore it is not so desirable to broaden the Arts degree in that direction.

9200. *Mr. Campbell.*—But your own preference is in favour of broadening the M.A. degree and letting it include Science?—Yes; and to have a number of special departments out of which the student might choose after having passed an entrance examination.

9201. Would you indicate those departments in the title? would you say, for instance, M.A. in science?—No. I would just do as they do at Oxford. They do not indicate that a man who has taken the B.A. degree has gone out with honours in mathematics or anything of that sort.

9202. *Mr. Campbell Swinton.*—Do you think that the B.A. degree should be revived?—I think, on the whole, it would be desirable to have such a degree. It would be a natural distinction, for one thing, for members of the teaching profession when they were not able to go on to take the whole amount of study included in the M.A. degree.

9203. What amount of class attendance or proficiency would you require in order to a man taking that degree?—Under the old system two departments were required, and I think that should be the amount, —that is to say, classics and philosophy, or philosophy and mathematics, and so on.

9204. Would you say mathematics and natural science, or moral science and natural science?—Yes.

9205. And you would allow classics to be omitted, so that a man could take the B.A. degree with mathematics and moral science, or mathematics and natural science?—It is difficult to arrange a scheme for the B.A. degree without considering whether the M.A. degree is to include the natural science subjects or not; but looking to the present M.A., it would be fair to demand that a student should take a Latin class and a mathematical class, or else pass the preliminary examination in those subjects—that is to say, the high preliminary examination they have now. After that I would leave him free to choose, say, five classes out of the curriculum.

9206. The high preliminary examination being the preliminary for the three years' course?—Yes. If he could pass that, I would allow him to choose freely what five subjects he pleased.

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9207. What length of University attendance would you require of him?—Five classes would involve two years.

9208. Instead of three years, in which the M.A. degree can be taken?—Yes. I think that would be fair, and I should rather object to the idea which has been supported by some of fixing a definite course for the B.A. degree, and specially discouraging the student from taking whole departments—that is to say, insisting that he shall take one mathematical, one philosophical, and one classical class. It would be much better to leave him quite free, because a student ought rather to be encouraged to take whole departments. He will get much more benefit in following out one subject thoroughly than by taking portions of different subjects.

9209. Would you allow the B.A.s to be members of the General Council, and to vote for the Parliamentary representation?—I think that is doubtful.

9210. Do you think that the institution or revival of this degree would have an effect in the way of deterring men or preventing them seeing the expediency of going on to the M.A. degree?—I rather think it would act the other way. The course is so long, and takes so many years, that it seems almost a claim of right that a student who has studied faithfully so many subjects should have some kind of distinction, especially if he is going into the teaching profession, where any distinction of that kind would be important to him.

9211. From your knowledge of the English Universities, do you not think that the B.A. degree, which you propose, would indicate a very different amount of proficiency from that which the B.A. indicates in the English Universities?—I have taught pass men in an English college for two years, and I almost think that two departments in a Scotch college involve as much labour and as much knowledge on the part of the student as the English B.A. does, and I am certain that three departments represent a good deal more.

9212. *Mr. Campbell.*—It has been suggested that any degree of that kind inferior to the M.A. might have a different title, to prevent any mistake,—such a title as that of Licentiate or Associate?—I think it would be better to keep to the old title; it would be much more appreciated. The holders of such a degree as that of Associate would be confused with the Associates of the middle-class examinations in England.

9213. *Mr. Campbell Swinton.*—What is your opinion as to the system as it at present exists of awarding honours after taking graduation?—The main improvement I would suggest is that there should be at least three classes in honours. We have generally found that to have two classes only has a bad effect in this way, that the student does not regard himself as successful unless he gets a first-class. We often have great difficulty with an exceedingly laborious student, who has got up all that he possibly can get up, and who yet has not such an amount of ability as that one would like to give him a first-class. You distinctly want a second-class for such a student, and to make the second-class a distinction you need a third-class, which would represent something above the attainments of a pass man,—a failure for the first and second classes, but still a not very bad failure.

9214. You do not think that for a man whom you place in the second class at present, it is a sufficient distinction to have beat the mere pass men?—No, it is not a sufficient distinction to him. In fact, it is not considered a distinction at all, and yet we are often forced to put very deserving men into the second class.

9215. On the whole, has your honours system been successful?—I

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think it is gradually becoming successful. There were very few who took honours for a time, but most of the professors now have classes for higher kinds of teaching, and a considerable number of students have been stimulated to take honours within the last few years. It is not all that one could wish, and there are a great number who take prizes in the classes, but who do not go in for the degree with honours; but still a good deal has been gained.

9216. *Mr. Campbell.*—It has been suggested to us that the pass men ought to be classified?—I know it has been proposed that we should do as is sometimes done in England, and put a star after a man's name. At Oxford we used to give a man an honorary fourth.

9217. *Mr. Campbell Swinton.*—I suppose it would be very laborious work for the examiners to classify the pass men according to merit?—Yes; it would be almost impossible to put pass papers in order of merit.

9218. But you think it would be possible to denote by a star those who had taken the pass particularly well?—Yes.

9219. But that object would probably be met by having a third class of honours?—I think you could scarcely give even a third class in honours to a pass man if he had done very well, because the amount of additional reading that is involved in the honours degree is so much greater than is required for the pass. You would require to have a fourth class if you did that. To have a first and second class of pass men would, however, be better. It used to be considered an annoyance for a good man at Oxford to receive an honorary fourth, as it might mean either a very good pass or an unmitigated failure in honours.

9220. Have you any other observations on this point?—I wish to say that I sympathize a great deal with Professor Nichol in his regret that English literature is the only subject which has no honours for higher study. At the same time I have some difficulty as to the way in which that defect should be remedied. I should rather object to the giving of honours for English literature as part of the honours for philosophy, because it would lower our standard for philosophy below that of the other Universities. Both Professor Veitch and myself have had higher classes for those men who have devoted more time to philosophy, and a good philosopher is not always a man who has a great taste for English literature. I do not think we could maintain a high standard of honours in philosophy if you throw in honours in English literature as part of it. There is no great objection to having English literature coupled with philosophy in the pass; that is a mere matter of arrangement; but if you did the same thing with regard to honours, it would inevitably lower the standard for philosophy.

9221. Is English literature not as naturally connected with the classics as with philosophy?—I should say more naturally. The reason of the present arrangement is that there are three classes in each department,—at least I see no other reason.

9222. *Dr. Muir.*—Could not honours be given in English literature, and also in (say) Hebrew, even though not parts of the regular course?—Yes. I think it is exceedingly desirable that honours should be given in every subject.

9223. It seems desirable to give honours to men for high attainments in Hebrew?—Yes, I think so.

9224. *Mr. Campbell Swinton.*—You have something to say with regard to the absence of sufficient provision for legal education in Glasgow?—Yes. We have only two strictly legal chairs in Glasgow, and consequently, in making arrangements for the B.L. degree, we have had to take that into account. What is demanded for the B.L. is

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five classes in Arts, and then three in Law. The classes in Law which are prescribed are Scots law, conveyancing, and a third, which may be either forensic medicine or civil law or political economy.

9225. Is civil law not imperative?—I think civil law ought to be imperative, and there ought to be a class for it, if you are to give a degree in Law at all; and it is also extremely desirable that there should be a chair of history.

9226. Of history as a branch of law?—Yes,—constitutional history, or something of that sort. It would be desirable to have chairs for those subjects, and lessen the amount of Arts subjects that are put into the B.L. degree. We in Glasgow are very much in need of a chair of history, both of ordinary history and specially, perhaps, with respect to the demands of the Law Faculty.

9227. Do you think one chair might do for the two,—that the same man could teach both history and constitutional history?—I think he might; at least we should be glad to get one man for both in the meantime.

9228. Do you think there are any other chairs required in the University?—I think we should have either a chair or a lectureship of political economy. I mention that because I have to teach it myself.

9229. You think it hard on the Professor of Moral Philosophy that he should have to teach it?—Yes; I have found it a great strain to keep up the two subjects together, and I cannot pretend to keep up with the literature of political economy as a professor ought to do. Moral philosophy is a large enough subject.

9230. Do you give a separate course on political economy?—Yes, an entirely independent course. Every alternate year I give a course of political economy.

9231. Entirely separate from the moral philosophy course?—Yes; a course of thirty or forty lectures.

9232. And that is a voluntary course, so far as attendance goes?—It has had a few additional students since the B.L. was instituted.

9233. But, except for the B.L., it is not compulsory?—It is not compulsory even for that.

9234. It is not compulsory for anything?—No; but I think the subject is so large, and so increasing, that we should have a professor for it, especially in a place like Glasgow. It is impossible it can be done justice to unless you have a separate professor or lecturer for it.

9235. Is that the only additional professorship you desiderate?—I have mentioned the only subjects that are sufficiently kindred to my own for me to interfere with.

9236. We should be glad to be favoured with your opinion on the institution of entrance examinations?—I should be in favour of entrance examinations, with certain restrictions. The reasons which have been generally urged for entrance examinations are, that the University is practically intruding upon the profession of the teachers of schools, who are not put in a fair position when their good pupils are always taken off to the University; that the University classes are embarrassed by an uneducated set of students; and that many of the students themselves are not in a position to profit by University teaching. I think all these reasons hold good to a certain extent. The embarrassment of the teaching occurs principally in classics, because there the professor has directly to examine orally. In mathematics and philosophy it does not matter so much, because the principal examinations are written examinations. But I cannot but think that in the Latin class, with the standard of entrants so low as Professor Ramsay says it is, there must be great

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interruption to the business of the class. The main point, I think, is to do justice to the teaching profession on the whole,—that we should not interfere with their duties, and that we should give them some clear indication of the point at which we take up the work of education.

9237. Can you indicate to us what that point would be,—how stringent you would make the examination?—That leads to a consideration of the difficulties in the way. The chief difficulty is the imperfect character of the schools. Greek, one may say, is not taught at all, or it is taught in so very few schools that it may practically be regarded as a subject which the teachers have given up. At least, the percentage Professor Ramsay found educated in Greek, in his preliminary examination, was something very small.

9238. Then you would be a little surprised if you heard that a witness told us there would be no difficulty, even in the present state of the schools, in having an entrance examination which would include the reading of the New Testament and Xenophon?—I should think Mr. Jebb would be very much surprised at that after his experience last year. He said he did not know what examination he could possibly subject students to that they could pass in Greek. Another difficulty is the age of the students. I think Professor Ramsay found in his junior class about one hundred students above nineteen or twenty. You cannot send these men back to school. There is still another difficulty, and that is, that a number of students enter the higher classes, that there they get attracted to the work, and go on with the rest of the course. Those students have already gone through part of their course before they think of entering as regular students, and you would lose that class of students if you refused to count as part of their course the classes taken previously. Sir William Thomson, I believe, says there has been a considerable number of men in different years who have done that. Well, then, to meet those objections, I think that for one thing we could scarcely have an entrance examination to begin with for everybody; we must have a limit as to age. We must say that above the age of twenty we shall not exact an entrance examination. Often we find men come up so imperfectly prepared in classics that they could not pass any examination. Yet often they do something considerable when they get to the other classes. It would be too great a revolution at once to exclude all that class of students, or to say that they must get preliminary training.

9239. Would your difficulties be met by the suggestion that there should be no entrance examination for the junior classes; but at the end of the first or the beginning of the second year, all students should be subjected to an examination similar to that to which all candidates for the three years' curriculum are now subjected,—in short, that the three years' examination should be applied not only to students coming fresh to the University, but to those who had attended the junior classes?—That would practically be to throw the junior classes out of the University.

9240. As soon as the secondary or primary schools gave a sufficient education to enable their pupils to pass the examination. It would not be until that period arrived that the junior classes would cease to exist?—Yes; that perhaps would be the best solution. I think the entrance examination should be a varied examination, having such subjects as Latin, Greek, modern languages, science, arithmetic. I would make Latin and arithmetic compulsory; but it would be desirable to allow considerable variety amongst the other subjects, especially if the scheme of widening the M.A. degree were adopted.

9241. But unless you made Greek compulsory, you would not get rid

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of the evil complained of now, viz. that the very elements are taught within the walls of the University?—I do not think you can get rid of it until the schools are better. That is, of course, an argument often retorted. It is said on the part of the schoolmasters that they will provide the education if we will exact it; and this is a fair argument in the case of Latin, which the schools are already prepared to teach; but apparently they have not the arrangements for teaching Greek, and, indeed, are rather less prepared than they were formerly.

9242. Are the majority of the teachers of primary schools often able to teach Latin sufficiently?—In primary schools in town, certainly not. In a number of the parochial schools they still have it, and I think might be encouraged to pay more attention to it if there was an entrance examination.

9243. I suppose you are aware it is the case that the number of schoolmasters in the new public schools who can teach Latin to any extent is diminishing under the operation of the Code?—I am afraid it is; still, there are a very considerable number of the parochial schoolmasters who do make an exertion to keep up the teaching of Latin; and generally, where they do make the exertion, they are successful. Somehow they send up men better prepared, considering the time spent on the subject, than do some of the secondary schools. I think that is easily accounted for, because it simply means that the parochial schoolmaster has taken his clever boys in separate hours, and given a good deal of pains to them.

9244. But, on the whole, you do not think there would be any difficulty in introducing at once an entrance examination of a certain amount, though at first it should not be too stringent?—I think there would be no difficulty if it were not too stringent, and if there were a sufficient variety of subjects. In Edinburgh they already have local examinations in connection with the University, and in Glasgow a scheme is just being organized of a similar character. I think that the junior certificate given in the local examinations would be a very good entrance examination. It includes a sufficient number of subjects, and, in fact, would be fully as much as we could exact at first in an entrance examination. There are certain common and certain special subjects. The common subjects are—English, writing to dictation, easy grammar, and so on; history of England and Scotland down to a certain period, geography, arithmetic, Latin, and Scripture knowledge. The special subjects include a great variety of subjects, such as English, English literature, history, Latin, Greek, French, German, mathematics, and natural philosophy.

9245. But you think that the junior examination on general subjects would be sufficient for a young man entering the junior classes of the University?—Yes. I should say that the junior certificate is given for the common subjects *plus* two of the special subjects; and I think that certificate would represent fully as much as we could possibly wish for an entrance examination,—perhaps more than we could expect quite at the first. Perhaps, therefore, a solution of the difficulty might be found in demanding that every entrant should pass the local examinations.

9246. That would qualify them for going to the junior classes, but not to the senior?—Yes.

9247. Would you prefer that to the plan of having an examination at the end of the first year, which must be passed by all who wish to enter upon the curriculum?—No; I think that the latter plan is on the whole the best solution. The only objection that may be urged is that it is practically reducing the University training in those subjects to one year; at the same time, I think it is reducing it in the right way.

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9248. *Dr. Muir.*—And it is also encroaching on the province of the schoolmasters?—It retains the first year, but it retains it only so long as it is wanted.

9249. Only so long as the schools do not occupy the ground?—Yes.

9250. And if they advance and occupy the ground, the junior classes will disappear?—Yes.

9251. *The Duke of Buccleuch.*—And if it were found that an entrance examination was necessary for the University, the schoolmasters would prepare for it?—I think so.

9252. The pupils would demand it, and the masters would find it their interest to teach?—Yes. In that way the difficulty about Greek would be got over, because provision would be made in the University only so long as it was wanted.

9253. *Mr. Campbell.*—Do you think that additional assistance or apparatus is required by the present or by future professors?—I think most of us require some assistance. We get certain assistance from some scholarships that have been recently established,—for instance, the Clark scholarship in philosophy. The student who gained that scholarship has assisted Professor Veitch this year.

9254. Is that the condition on which he holds his scholarship?—Yes; that he is to do some kind of work.

9255. What is the amount of the scholarship?—It is worth £200 a year. There was money left by Mr. George A. Clark to found four scholarships,—one in classics, one in mathematics, one in philosophy, and one in natural science.

9256. Are they all of that value?—All of them. The student who takes that scholarship has to give a certain measure of assistance.

9257. To the Professor of Logic, or to you also?—It so happened that on the last occasion, two men were exactly equal in the competition, and one of them assisted Professor Veitch, and the other assisted me. My assistant, Mr. James Thomson, who was one of our most distinguished students, unfortunately died last year.

9258. Was the scholarship divided between them?—Yes. Generally, of course, you cannot ask a student to assist more than one professor. I have some assistance from the Euing Fellow who has been appointed this year. His fellowship is worth about £80 a year, and it is part of the deed of foundation that he shall give some assistance in the teaching.

9259. You have no assistant provided from the general funds of the University?—None whatever; and I think the philosophy classes rather want additional assistance. Of course, the amount of assistance one can ask from a student holding a bursary is small. One does not like to interfere with the student's own studies. He is generally in other classes. But I think we could conduct our classes much better if we had a little assistance for the reading of exercises and written examinations. In my own class, for instance, I have 140 students this year. Each of them gives in an exercise every week. Then there are written examinations three or four times in the year, and there are voluntary exercises. With the utmost labour, and all the assistance that I can get, I cannot get through the ordinary exercises in a week, and I have simply to do it on a sort of principle of selection, reading some this week, and some that week. But it would be very much better if I could every week classify the whole exercises given in; and if I had some competent assistant, even an advanced student, whose time would be at my disposal, I think I could work the class better.

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9260. What amount of salary would such an assistant require?—I think £100 a year would be quite sufficient.

9261. Do your remarks on that subject apply to the other philosophical classes?—Yes; the logic class is still larger than mine, and requires assistance even more.

9262. What is your view with regard to the length of the University sessions, and whether any change should be introduced in that respect?—I think there is a difficulty both on the side of the students and on the side of the professors in the way of lengthening the session. On the side of the students there is this difficulty, that very large numbers of them could not come to college if the curriculum were extended over a larger portion of the year. Suppose the curriculum to be so arranged that the students must come in the summer, we should be deprived of a good number of them. A considerable number of them teach in the summer, and thereby acquire the funds with which they support themselves in the winter. A much larger number of them than I suspected are employed in that way, as I find from Professor Ramsay's inquiries on the subject. Therefore, you could not arrange the curriculum so that the classes would necessarily extend over the summer. Then the only question comes to be whether there are a sufficient number of students who wish to come in the summer to justify you in making separate provision for them. That, I think, is doubtful. The present arrangement has both its advantages and its disadvantages. It is advantageous for good students, even where they have not to maintain themselves by their labour. It is extremely desirable that they should not be always being taught, or they will not have time to think. I am not sure if it is good for the second-rate students that they are left so long without teaching, unless when they have to maintain themselves by their own exertions.

9263. Independently of the question of summer sessions, do you think the length of the present session is suitable, or would you advise it to be lengthened?—I think the only question is as to having a separate summer session. To prolong the winter session beyond six months is scarcely possible.

9264. Does the fact of meeting in the beginning of November not give a very short time before Christmas?—You might arrange the session so as to have three months before and three months after Christmas; but it would be very difficult to do that without re-arranging the whole habits of the schools.

9265. It has been suggested that the classes might meet in October?—I think that might be done. There would be a little difficulty at first in the arrangement.

9266. In short, on the whole you do not think any change on the length of the session is desirable or called for?—I do not think so.

9267. And there are obvious advantages in the attractions it adds to the chairs?—Yes, the attractions it adds to the chairs are very considerable. We have now to compete with Oxford and Cambridge, where tutors are employed for only six months, and I think you would compete at great disadvantage if you demanded a longer time of the professors. If you do have a summer session, you must make provision for it by separate professors. Even in Oxford the teachers are crying out that they have not enough of time for original research, and I think if you were to demand more time from the professors, you would not have the same class of competitors. Looking back to a quite recent election, I think that for the Greek chair in Glasgow there were three competitors who might be influenced by that consideration, and certainly

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the present professor would never have been there if our session had been longer.

9268. Have you turned your attention to the question of the propriety of introducing extra-mural teaching in the Faculty of Arts on somewhat similar principles to those on which it exists in the Faculty of Medicine?—I think that the great difficulty in regard to the Faculty of Arts is that the standard of teaching has been very much kept up by the classes separately—that is to say, the professor in a class is practically master of the requirements in the subjects. He can fix the whole work, and especially the number of examinations which are necessary for the reception of his ticket. If you give him rivals outside, obviously you must fix upon some standard by which the work both of the professor and of the extra-mural teacher shall be judged, and that is equivalent to making the whole thing depend upon examination.

9269. In short, that both the professor and the extra-mural teacher would compete as to who could best prepare students for the degree?—Yes. A great number of our students do not take the degree; the main thing for them is the ticket. Over them the control is almost entirely through the professor. Then there are difficulties about the economical arrangements connected with the chairs. The fees are fixed at a very low rate in the Scotch Universities, and in that way the whole thing is taken out of the region of commercial competition; and if you do not to a certain extent protect the position of the professors, you can scarcely expect to get the same kind of men to fill the chairs.

9270. I suppose you think that the question of extra-mural teaching in the Faculty of Arts could not be entertained unless a sensible addition were made to the salaries of the professors?—No; it could not.

9271. There has been a movement to make some small addition to the fees?—Yes.

9272. Are you in favour of that?—I see nothing to hinder it.

9273. The great change that has taken place in the expense of living, and in the value of money, rather seems to point at some increase in the fees?—If there was an increase of one guinea, as has been proposed, the increased fee would not really represent so much as the present fee did when it was introduced.

9274. And you do not think the increase would seriously affect the students?—I do not think so. I desire to say that some of the classes now are increasing beyond the possibility of management by a single professor, and that if extra-mural teaching is not to be introduced, there should be a larger number of intra-mural teachers—that is to say, for instance, there ought to be two or three Professors of Latin.

9275. Would highly qualified assistants, such as Professor Ramsay employs, not serve the purpose?—I think that when a class reaches the number of 500, the time has come for considering whether it should not be broken up.

9276. Have you classes of that size?—I am referring to the total number of students in both the Latin classes—290 in the one, and about 200 in the other. I think that obviously the time has come when that subject should be divided, and it is not sufficient that the professor should have highly-qualified assistants. There ought to be several men in the position of professor dividing the subject between them. The present professor and his successors might have some honorary or pecuniary advantage over the others; but at the same time I think there should be several.

9277. Do you think there is such a probability of the number of students in that department continuing to be so great as to render it

expedient to institute new professorships?—I think it is almost certain the number will not diminish.

9278. *Dr. Muir.*—Do you not think that an entrance examination would diminish it?—It might check it for a few years, but I do not think it would permanently diminish it. Of course, in connection with the addition to the fees, which in such a large class would be very considerable, it might be considered whether part of the emoluments should not be given to the extra professors.

9279. *Mr. Campbell Swinton.*—What is your opinion as to the modes of electing to University offices?—I may first mention the Rector. The election by Nations (I have no distinct personal opinion on the subject, but I have talked with a number of students about it) produces a general feeling of discontent. There are a few who do not object to it, but, on the whole, most of the students express a sense of injustice that numbers do not prevail.

9280. I suppose the members of the small Nations do not object?—No. The argument of those students who wish the present system to be preserved is that, as you would not like to give Members of Parliament to London in proportion to its population, so you ought not to apply that principle to the University, otherwise you give Glasgow the control of everything. As matter of fact, the students from Glasgow are so much more numerous than those from other parts of the country, that to allow it to be decided by numbers would be practically giving Glasgow the predominance. I do not myself think that argument is worth much, because when students enter the University, they should consider themselves citizens of the University.

9281. *The Chairman.*—Do you find that the Glasgow feeling has had any particular influence in the election of Rector?—Not the slightest, I should say.

9282. They very seldom elect a local man?—Never.

9283. *Mr. Campbell Swinton.*—The *Natio Glottiana* does not all go together as against the others?—No, it is as much divided as the others; it is a mere chance on which side the Nation will be.

9284. Then you think it would be better if the election were by an aggregate poll?—I think, on the whole, the opinion of the students would be in favour of that change. Some of the older students have also desired to disfranchise the junior students, but I do not see how you could disfranchise any of them without disfranchising all.

9285. And you are not in favour of disfranchising all?—I think not. I think it is as well to leave the election in the hands of the students; it gives them a greater interest in the affairs of the University. It is certainly an anomaly; but the alternative would be to give the election to the Council, and I doubt whether it would be desirable to add another election to the work of the Council. I do not think the Council would elect so good members, or attach so much importance to political and literary distinction, as the students do.

9286. Do you approve of the period of the year at which the election takes place?—Yes, it must take place at the beginning, of the session.

9287. Perhaps even nearer the beginning than at present?—The nearer the better, not to disturb the work. Nothing can be done till it is over.

9288. If it were nearer the beginning it would not only not disturb the work, but it would bring the students up to the University?—Yes; you must allow them a week at the beginning; but that would be enough; at present they have a fortnight.

9289. Have you any other remarks upon this subject?—I should like

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to say a word about the Principal's duties. I know it has been sometimes said that it would be better to adopt the German system of having a kind of rotation of the Principalship amongst the professors, but there are serious arguments against that in any large University like Glasgow. It might do in an Oxford college, which is an institution of small size; but in a place like Glasgow, where the professors have very large classes to manage, where there is an immense amount of small details of business which somebody must attend to, and where there is often somebody wanted to represent the University and consult with other people, I think it would be a move in the wrong direction. There is a great advantage in the Principal not being distinctly a member of any of the Faculties, and not teaching a class himself, because he thus occupies a sort of mediating position, which is sometimes found useful in the practical affairs of the University.

9290. He has no interest in any changes in the curriculum by which the interests of individual professors might be affected?—Quite so. It is quite allowable and desirable that the Principal should occasionally give lectures on some subject. As matter of fact, the Principal of Glasgow is actually lecturing at present; but that he should undertake the burden of a class, or be one of the professors, is undesirable.

9291. *The Chairman*.—You would have him to lecture gratuitously?—Yes.

9292. Because, if he charged fees, that would bring him very much into the position of the professors, and destroy the independent influence you have spoken of?—Yes. It is merely that he should be allowed to give a course of lectures on any subject with which he is conversant.

9293. *Mr. Campbell Swinton*.—Which the Ordinances say he shall do when required by the University Court, and which he may do voluntarily?—Yes.

9294. *The Chairman*.—How many members are there in your Senatus?—There are now twenty-eight.

9295. The office of president of that body must be one of considerable difficulty and delicacy?—Yes. There is a very considerable amount of business, and the Principal is nominally a member of all committees.

9296. *Mr. Campbell Swinton*.—Do you not find the number of the Senatus cumbrous?—Yes. Practically the business is transacted by a smaller number, but there is also a varying number of the other professors who appear in the Senate-room from time to time.

9297. *The Chairman*.—Is the business done a good deal through committees?—A good deal. The meetings of Senatus are difficult things to get through, with such a number of professors. However, I do not see how that could be avoided.

9298. *Mr. Campbell Swinton*.—Have you anything else to add upon this head?—I think the present declaration exacted from the professors is rather objectionable. They are expected to declare that they will do nothing, and teach nothing, directly or indirectly contrary to the doctrines of the Church of Scotland. No professor would really wish to make the teaching of his subject the means of attacking the doctrines of the Church of Scotland; but your security for this is in appointing reasonable men, and in the general discipline of the University, and you get no additional security by this oath, which, besides, may occasionally annoy tender consciences. For instance, it is very difficult for a physiological professor to say whether, in teaching the Darwinian theory, he is or is not teaching something indirectly contrary to the doctrines of the Confession of Faith. Of course, the common-sense solution would be that the professor is to take no notice whatever of the doctrines of the Church of Scotland, and

that is the solution invariably adopted; but still I think the oath, and especially this word 'indirectly,' is objectionable.

9299. *The Chairman*.—When you speak of teaching such a thing as the Darwinian theory, do you mean teaching it as truth or expounding the theory?—I mean teaching it as truth.

9300. But is it any part of the duty of a professor to teach any theory as absolute truth?—I think that a physiologist who was attempting to explain the facts before him would be bound to say that he considered this or that theory to be the best, and that is practically saying it is true.

9301. The analogy between physiology and a subject such as you handle is not very easily traced?—Well, then, let me speak of my own subject. Suppose I am teaching the Kantian philosophy, I may express my approval of some parts of it and my disapproval of others. I have not considered, and do not intend to consider, whether there is some remote consequence of that theory or of my observations upon it from which inferences may be drawn unfavourable to the doctrines of the Church of Scotland. I believe I am keeping my oath when I avoid any offensive observations or direct attacks upon the doctrines of the Church of Scotland; but, at the same time, if I took that word 'indirectly,' not in an extreme legal sense, but in the sense that the most tender conscience would attribute to it, I should be in a considerable casuistical difficulty.

9302. Your own conscience is not so tender?—Certainly not.

9303. Are you aware of any professor in Glasgow who has found his conscience at all afflicted?—While I say that my conscience is not so tender, I should add that I consider it a hardship to sign such a declaration, and that I would rather not sign it; but I do not consider my scruples so important as to lead me to decline the office. If it were put a little stronger, it would lead me to decline.

9304. Do you think that the feeling you are expressing is general amongst the professors in Glasgow?—A considerable number would rather avoid the test; I do not know it gives much trouble to anybody.

9305. *Dr. Muir*.—Is the objection not particularly applicable to the chair of Geology?—I should think so.

9306. As regards the age of the earth, compared with the Mosaic account?—There might be such difficulties.

9307. *The Chairman*.—You have not a chair of Geology, but I suppose the Professor of Natural History teaches geology?—Yes. I have a remark also to make with respect to the obligations of the Divinity Professors. I am going a little out of my province, but I cannot help taking an interest in the matter for the general good of the University. I think it would be an immense calamity if the teaching of theology were separated from the Universities, and entirely given over to the different denominations. That, I think, would have the effect of making the Universities anti-theological in the bad sense of the word; and on the other hand, it would take away all due weight from those men who are the natural representatives of religious ideas, if they were always made the organs of special sects. In connection with that, I think it is a great pity that there should be such strict tests for the Divinity Professors; but laying that aside, it is at least undesirable to make them stricter than they really need to be as matter of prudence. If you were to set your Divinity Professors free from all tests, the difficulty would be as to where they would get their students. They would not get any for some time, or they would only get men who were not preparing for orders. But I think that even now it might be possible to separate the teaching of theology from any special Church or denomination,—to open the

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chairs of Theology to all who will accept the present test of the Confession of Faith,—that is to say, to open them to members of the Free and United Presbyterian Churches, and any others who would accept the present test. There is no possible reason why the students, after having passed through their Arts course at the University of Glasgow, should immediately branch out into a number of separate Halls. It would be better if you could combine all the Professors of Theology in the various denominations into one Hall. In that way you could divide the subjects better; and if the University chairs were thus opened up to all who accept the present test, the Universities would probably in course of time absorb all the other Halls. For example, you might have the present extremely able teachers of the Free Church College in Glasgow becoming members of the Theological Hall of the University. So far as they were connected with the University, they would be to a certain extent scientific representatives of theology; but if all the Halls become connected with special denominations, and not with the Universities, theology will lose its hold in the country, and the men who teach it would have no scientific position. I therefore think it would be desirable, looking to present exigencies, if the Commission could see its way to recommend the opening up of the chairs to all who would accept the test of the Confession of Faith.

9308. Do you think your plan is practicable? Suppose a vacancy occurred in one of the Theological chairs, and a new professor were appointed from the Free Church Hall or the United Presbyterian Hall, would you expect him to bring his students with him to the University, and get them to attend the classes of the other professors who still remained members of the Established Church?—I think that if you freely elected United Presbyterians and Free Churchmen to University chairs, it would lead in the long-run to all the Halls being combined. I hope it would.

9309. Do you not think it would rather lead to this, for example, that a Free Church student would take his classes partly in the University and partly in the separate Hall of the Free Church, according as he found in the University more or fewer teachers belonging to his own Church?—Such a thing might happen to a limited extent at first, but gradually they would see the uselessness of keeping up separate Halls. The Free Church, I believe, established a chair of Moral Philosophy at Edinburgh. The holder of that chair was elected to be the professor of the same subject in the University, and the Free Church then ceased to have a Professor of Moral Philosophy. It is possible that the same thing might be extended to Theology. I hope, however, it may be extended in another way,—not by their ceasing to have professors, but by combining with the present University professors to have a wider curriculum, and dividing it between them.

9310. That would require joint action on the part of the three Presbyterian Churches?—One does not wish to anticipate future events, but supposing that within the next twenty years the Church of Scotland was disestablished, it is quite possible, in that event, they would agree to combine their Halls and keep them in the University.

9311. But as the matter stands at present, do you think that the three Presbyterian Churches are likely to combine for the purpose you have mentioned,—more likely to do that than to effect a union altogether?—I think so; I think it is quite within the limits of possibility.

9312. *Dr. Muir.*—Does not the Free Church Hall possess very considerable endowments?—Yes.

9313. Would that not be a considerable difficulty in the way?—I

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think there would be no difficulty in combining the Free Church endowments with the present endowments. The desirable thing would be to have more professors, and, in order to have that, more endowments.

9314. Supposing that plan not to be feasible, do you think it would be expedient to have a free chair of Theology, not fettered by tests,—assuming an individual of sufficient eminence and character to come forward to teach theology to any one who would attend his class?—It would be a most desirable thing, if possible.

9315. *The Chairman*.—Would he get many students?—Not many who were studying for orders,—in fact, I should think none,—because they would not care to mark themselves out in that way.

9316. *Dr. Muir*.—Considering it is desirable that truthful theology should be reached, the same as in philosophy, is there anything else you can suggest with a view to bringing about that end?—My idea in the remarks I made was to propose certain steps that might tend to give the theological professors a more free position in the discussion of questions,—at least as free as can be, looking to the practical state of things in this country. But if you mean to ask whether I see my way to the introduction of a complete German Theological Hall at once, I doubt whether you would get much support for that at present. You might, however, take gradual steps to free the present professors from their limitations. I think theology would gain immensely in this country if we had some really independent scientific representatives of it.

9317. *The Chairman*.—In point of fact, theology is scientifically taught in the University, is it not?—I know nothing to the contrary.

9318. *Mr. Campbell Swinton*.—Have you any opinion as to the sufficiency or insufficiency of the emoluments and retiring allowances of the present professors?—I have already said I think the fees ought to be raised. I think that is reasonable, and I do not believe any difficulty will be occasioned to the students thereby.

9319. Do you think that if the fees were raised it would be necessary to increase the salaries, so far as Glasgow is concerned, of the Arts professors?—I do not think it would.

9320. *The Chairman*.—That is to say, if you have no extra-mural teaching? If you have extra-mural competition, would not the salaries require to be raised?—If there were teachers competing on equal terms with all the classes for the degree, the salaries would require to be raised; but if it simply means, as it means in the medical curriculum, that the student might take one year out of the University, I do not think I should be afraid of that.

9321. It is two years in the medical curriculum?—I thought it was only one year.

9322. *Mr. Campbell Swinton*.—And I think you indicated before that you are not much afraid of extra-academic teaching?—I am not; but I do not see my way, with extra-academic teaching, to have the standard kept as it is.

9323. What have you to say with regard to retiring allowances?—I think that after thirty years' service no special certificate of ill-health should be required from a professor. I rather think it would be a gain to the University to give a professor his full salary as retiring allowance and say he must go at the end of thirty years; because, though he may still be quite capable of continuing his duties after that time, the kind of energy and liveliness which is required for teaching is likely to be a good deal taken out of a man by the time he has been teaching for thirty years, and it would be for the good of the University—at least in most cases—to make him retire. There might be exceptions, though I

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do not see my way to make them without seeming invidious. I do not see how you could say to one man—‘You must retire because you have ceased to be energetic,’ and to another man—‘You had better stay, because you are still energetic.’ It would be extremely desirable, at any rate, that there should be some understanding that a man in the natural course of things should retire at the end of thirty years. If he is capable of doing service afterwards, it is more likely to be in the way of writing books or making discoveries than in teaching his subject.

9324. Independently of that, would you make any changes? When a professor retires earlier, have you any suggestion to make as to the proportion of his salary he should receive in the name of retiring allowance?—If he retires for ill-health after twenty years’ service, it might be desirable to raise the proportion a little; but then I would certainly be in favour of strictly demanding certificates of ill-health and incapacity for duty. But I have not considered that point much. The main thing I wished to say, was just that it would be desirable to make it a general rule that a man should retire after thirty years; and I may mention that the expense of such a measure would not be so great as it seems. Under the present system, since I came to Glasgow, there have been on an average about two professors, and sometimes only one, on retiring allowance. Of course the number would be slightly increased if you compelled professors to retire at the end of thirty years; probably it might be doubled. I have never calculated it, but the expense would not be great.

9325. Will you favour us with your opinion as to the mode of appointment to bursaries, scholarships, and foundations of that kind?—For one thing, I think it exceedingly desirable that all bursaries should be open to competition.

9326. You have in Glasgow one or two very valuable ones not open to competition?—Yes; they are given by favour, and if it were possible in any way to get hold of them and open them up to competition, they would add very much to the success of the University.

9327. Has any prudent mode ever been resorted to of inducing the patron or patrons of those valuable bursaries to throw them open?—Yes, I think so. I had not anything to do with it, but I believe that Professor Ramsay applied to various patrons by authority of the Senate.

9328. *The Chairman.*—Do you know how old those bursaries are,—a hundred years or so?—They must be that. Some of them are worth about £40 a year, and would be a great encouragement to the students if we could get them opened to competition.

9329. *Mr. Campbell Swinton.*—And the men to whom they are given are not subjected to any examination,—the bursaries are given entirely by favour?—Entirely by favour.

9330. *The Chairman.*—Not even a standard examination required?—None. I have once or twice recommended a student, and I think once my recommendation was attended to; on the other occasions it was not. The bursaries are given entirely by favour, and mostly to those who can get hold of the Duke’s agent. With regard to the large scholarships, there has generally been introduced into the deeds connected with them a provision that the holder shall give some assistance in teaching. I think that is rather a good thing.

9331. These are recent scholarships?—Yes.

9332. Does that apply to the Clark scholarship which you referred to?—Yes; the holder is required to go through such a course of study or to give such assistance in teaching as the Senate shall from time to time determine.

9333. Is that in the deed of endowment?—I think so.

9334. Does it not stand entirely upon the regulations of the Senate?—
I think the regulations were drawn up by the Senate in consultation with the representatives of Mr. G. A. Clark.

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9335. But in the will itself is there anything said about that?—I do not think so.

9336. I suppose that in some cases the will does prescribe teaching?—In the case of the Euing bursaries it does. The Euing bursars must offer to teach summer classes. The two bursars who have been appointed did offer to teach summer classes, but they did not get a sufficient number of students to teach.

9337. *Mr. Campbell Swinton.*—Do you think there is any advantage in having a certain number of bursaries which should be given on the ground of poverty, the bursar being at the same time subjected to a modified examination?—I think it is doubtful.

9338. *The Chairman.*—You would, then, exclude the element of poverty altogether in considering eligibility for such endowments as bursaries?—I think you do not want to get a student simply because he is poor.

9339. Poverty alone is no qualification; but would you exclude the element of poverty altogether?—It is very difficult to take it into consideration.

9340. Do you not think that if a student were presented to such a bursary only upon condition that he should pass an examination of a certain standard to be fixed by the University, that would ensure that the bursary should not be ill-bestowed?—I think it would ensure that you would get a student who might profit. At the same time, the propriety of receiving certificates of poverty, and investigating a student's circumstances, is doubtful. A number of the students who most require such assistance will not, I have found, put in their claim in that way.

9341. But, on the other hand, if the best prepared students as well as the cleverest are to carry off all the bursaries, is there not a danger that the bursaries might be carried off entirely by the rich class in place of the poor class, because the rich students are able to qualify themselves, before they come to the University, up to a much higher pitch of acquirements than the poor students can?—I think there is a little danger; but, at the same time, the desire of the poor man for a bursary generally makes him work for it.

9342. But the desire for a bursary that is open to competition is a desire for honour to a great extent, otherwise rich students would not compete for them?—Yes; I see the argument. But in practice it has always been found very difficult to exact certificates of poverty from the students.

9343. Are you not there contemplating the case of a student having to satisfy some body like the Senatus of his being poor?—Yes.

9344. One understands the delicacy and difficulty there; but suppose the bursaries which are now called presentation bursaries were left in the hands of the patrons, who might select those whom they thought the most deserving objects for the endowment, but refuse to admit them unless they came up to a certain standard of examination. You would there have, on the one hand, probably a very good judge of the claims of the student as a poor student, and you would also secure that the student should not be both a poor and a stupid student?—You would require to be sure that the patron would select him for his poverty.

9345. Among other considerations,—certainly not for his poverty alone,—but because he was both poor and deserving?—I think that would not be very objectionable.

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9346. In short, the endowments of which we are speaking were made by the founders for poor and deserving students, and it is desirable, is it not, to give effect to the will of the founders if you can possibly do so, consistently with the beneficial employment of the funds of his endowment? That seems only a fair consideration?—The will of the founder would not trouble me very much. If you could secure the selection of poor and deserving students and pass them through an examination, that undoubtedly would be a good thing; but when you are looking to a general scheme for the University, I think, on the whole, that if you increase the number of bursaries and open them to competition, any student who is deserving as well as poor will be able to get a bursary.

9347. I want you to consider whether, alongside the competition bursaries, there should not be a number of presentation ones?—The extreme difficulty of securing a good administration of the latter is one point to be considered, and another is, that a student who gets a bursary in the regular competition will feel he has earned it and will be stimulated by it, as he would not on the other system.

9348. *Mr. Campbell Swinton.*—Is there not also this consideration, that you would find it more easy to induce the patron to allow his presentee to be subjected to an examination than to abandon his right altogether?—That is a very important consideration.

9349. And if there were a number of patrons whom you could not induce to abandon their rights of presentation, would you not gain a great end if you got them to consent that their presentees should go through an examination at the instance of the *Senatus*?—We have always accepted any such compromise very thankfully when we could get it; that is to say, we have always been willing to examine candidates presented by a patron when he would not give up the bursary entirely to competition.

9350. *Dr. Muir.*—You said that, in your opinion, extra-mural teaching would have the effect of lowering the standard?—Yes.

9351. Is that the case with the *privat-docenten* in the German Universities, whose case seems rather parallel to that of extra-mural teaching, or is there any difference?—The difference is this, that the system of our Universities has not been arranged so as to make examination everything. If you once appoint a number of teachers quite independent of each other, their work must be tested by examination, and the classes then become at once a means of preparing for examination. In our Universities the classes have always been an independent thing, and the students work, in the first instance, to get their tickets signed by the professor. Very often, for instance, presbyteries accept the ticket as a qualification. Well, if you have but one professor, he can exact a high standard for his ticket; but if you have a number of professors, you must have the whole dependent on a general standard of examination. Now I do not deny that there are advantages in having a general standard by which everybody is tested, but there are also disadvantages. The great disadvantage is, that the teaching of the class is very apt to become of a less liberal character if the professor is tied down to preparation for examinations. I know it is very strongly the opinion of many of the tutors in Oxford that their teaching is being damaged by the constant regard of the students for the examinations. The students will not listen to anything that will not 'pay' in the examinations, and thus the examination system is felt to be a great bondage upon the teacher.

9352. That is not the effect in Germany,—to lower the standard?—I do not know.

9353. *Mr. Campbell Swinton.*—Is it not the case that in Germany the *privat-docenten* are not the rivals of the professors? The very fact that they do not take fees prevents them from being rivals, as extra-mural teachers would be?—I do not know the arrangements of the German Universities sufficiently to be able to say.

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9354. *The Chairman.*—But in point of practice, do you not teach quite beyond the requirements for the degree?—Yes; we exact in the classes a good deal more than is needed in the examination.

9355. And if you had competition in teaching, having the examination before your eyes as the one thing to be attained, the effect, as I understand you to say, would necessarily be to lower your teaching?—At least it would be to constrain it.

9356. The tendency would be to lower it?—Yes.

9357. That tendency arising from this, that the extra-mural teacher, in the first instance, and the professor almost necessarily following him, would both go in for 'cramming'?—Yes, to a certain extent they would, or at least they would be very strictly limited as to their modes of treating their subject and as to the parts of their subject they would treat. For instance, to take my own subject, I can arrange what elements I shall treat with most prominence, and I can change them as I see fit from year to year. I am practically independent in the treatment of my own subject; but if once you had competition, the next thing would be that you would have certain books which must be got up. The professor must lecture on those books, and take the student over a definite course, which he could not change; and that is what has been felt in Oxford.

9358. That would very much cramp the teaching?—Yes.

Adjourned.

FRIDAY, 26th January 1877—(*Fifty-First Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

THE DUKE OF BUCCLEUCH.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

Rev. W. F. IRVINE, examined.

9359. *The Chairman.*—You are minister of the parish of Arbroath?—I am.

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9360. And a graduate of the University of Edinburgh and a Master of Arts?—Yes.

9361. As such, you are a member of the General Council, and you take a good deal of interest in their proceedings, do you not?—I have taken such an interest from time to time.

9362. We should be glad to have your views as to the course of study and the regulations for graduation in the Faculty of Arts, and whether you think any improvement might be introduced?—I think it would be a great improvement to add to our present course of study one or two classes of natural science. Many members of my profession living in the country now deeply regret that we did not give more attendance to those

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classes than we did. Perhaps science had not made the same progress then as it has now made; but, speaking generally, I should say that no one can claim to be a liberally educated man who has not some considerable knowledge of one or two branches of natural science; and I believe that a class or two might be added to the curriculum in the course of the study of a student, without interfering prejudicially with any of the present studies.

9363. Would you make the addition to the present curriculum?—Yes. I have tried in connection with our Church to have some slight alteration made in what the Church requires in respect of attendance on some of the classes. I was induced, partly by friends and partly by my own inclination, to propose a system of substitution. It was proposed to omit class attendance on certain of the branches now required. There were in a committee of which I was vice-convener, and in regard to the work of which I took a good deal of trouble, a considerable number of gentlemen—among them Professors of Divinity—who would have substituted attendance on one or two branches of natural science in place of mathematics and natural philosophy, believing, as they did, that there are young men who have no aptitude for mathematics, but who might take a great interest in natural science; but the General Assembly (the report was read and discussed at an unfortunate time) indicated clearly enough that the present classes ought to be continued. There was an indication of feeling that it might be well to add, but not to omit anything.

9364. Would you yourself be inclined to substitute natural science for any of the present departments optionally?—Well, after reflection on the matter and a good deal of conversation with gentlemen whose judgment I am bound to respect, I think perhaps it would be as well to adhere to the present system of subjects, and add a class or two. As I have said, I don't think that would be any grievance to the students.

9365. Except in the way you suggest you would not be inclined to make any change in that respect?—I think not now. I would retain Latin and Greek; but I am disposed to think that if our students went up better prepared, two years' attendance on these classes would not be necessary, and time would thus be found for attending natural science subjects—natural history, geology, or chemistry.

9366. *Dr. Muir.*—But the General Assembly do not require the M.A. degree in the students of the Church, before they enter the Faculty of Divinity, do they?—They do not require the degree, but they urge students to take it. A considerable proportion of students do not take it; but there is a board of examination to test their qualifications now.

9367. But if the substitution was not allowed, what would be the result as regards the General Assembly? they would not reject students who had not taken the M.A. degree, would they?—No, unless deficient in the branches of study prescribed. I am sorry to say the reports of the examining board indicate mathematics to be low in young divines. They complain of results being hitherto unsatisfactory in that department.

9368. *The Chairman.*—Do you mean the examining board of the Church, or what?—The Church has a board of examination consisting of gentlemen elected by the synods of the Church, instead of presbyteries, as formerly.

9369. But that board does not examine men who have taken the degree of Master of Arts?—No. The Church accepts the degree, and has encouraged students to take the degree. On every opportunity that presented itself, the Church has been urgent in this for the last ten or twelve years. I don't know what the Church might do in connection with this matter, of course. If a student were allowed to substi-

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tute class attendance on the branches of natural science in place of mathematics and natural philosophy, I would deeply regret non-attendance on natural philosophy, to say the least. I think it is one of the most important classes, but a man cannot attend that without knowing something of mathematics. Still he might acquire as much of that subject as he required elsewhere. For example, this session fifty students have taken what we call the Commissioners' entrance examination in mathematics; and a similar number—I am safe to say forty-five—passed in Latin and Greek. A good many young men seem to come up better up in mathematics than in classics.

9370. More strong in mathematics than in classics?—Yes, when they first come up. So that I hold men may acquire mathematics extramurally—in the country, even anywhere.

9371. Your proposal, as I understand it, is to add natural science to the curriculum as compulsory?—Yes. In Aberdeen, they have natural history in the curriculum already; and in St. Andrews, although it was discontinued for a short time, they have enjoined chemistry; so that, in this matter, there are only two Universities to deal with—Glasgow and Edinburgh.

9372. Is there any other change in the course of study you would desire to see?—I have no suggestion to make in regard to any other, because I think there is no time for other things. I may say that I think it of great importance now that our young men, whatever profession they are to follow, should know German and French well; but that would require the institution of two new chairs, which I am not here to propose. I don't know whether it would be an advantage or not to have these languages taught within the University, for there are efficient teachers outside—at least in the University towns of Glasgow, Aberdeen, and Edinburgh. I should not press for anything in that direction.

9373. What is your opinion as to the propriety of instituting entrance examinations?—I have a very strong opinion on that point. I think that in the interest of the Universities, of the students, and of our secondary schools throughout the country, it is exceedingly desirable that entrance examinations should be instituted. Although we respect our Universities highly, and speak of them in terms of approbation, yet amongst educated men they do not have the position they would occupy were the junior classes not on a sort of level with burgh and secondary schools, for they are practically that just now.

9374. What kind of an examination would you introduce?—I had the honour of laying before the General Council, which met in October, a gradual scheme, beginning with comparatively low acquirements, and increasing these in the course of a few years to the standard required in the three years' curriculum examination just now. I would make the thing progressive, and not fix the standard once for all. And there are certain men who might be exempted from such examinations—men above a given age, who have resolved, later in life, to address themselves to a liberal education; in their case, perhaps, an entrance examination might not be insisted on—not at entrance, at all events.

9375. Are the persons you are now speaking of men who go on to their degrees?—There are such men who commence their studies with a view to the ministry in one or other of the Churches or other professions. In our Arbroath High School just now, there is a young man, whose father is a small farmer, and who himself was a quarryman until a few months ago, who, though rather a big fellow (he is about nineteen years of age) sits on the benches with little boys and girls, and is just beginning his career there. He will not attend there for more than two years, I

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suppose, but he will acquire enough of Latin, Greek, and mathematics, to enable him to enter a University with some credit. If the University were shut against such men, I don't think there would be any difficulty in getting them to attend secondary schools. I may mention a case which must be pretty generally known. The late Advocates' librarian, Mr. Jamieson, was an Arbroath man. He served his apprenticeship as a pupil-teacher in what was then the parochial school. He always inclined to literary pursuits, and had a great love of books. At the end of his apprenticeship, when he was between nineteen and twenty years of age, he resolved that he would not go to the Training College, but in place of that to the High School here. He was a tall young man, and yet he sat on the benches of your High School for two years. I am quite sure that there have been plenty of such cases in Arbroath and elsewhere; and I am persuaded that they would readily go to the burgh and other secondary schools if they were not admitted to the junior classes of the University.

9376. Would you abolish the junior classes altogether?—I would not abolish the junior classes altogether at present. I should be in favour of abolishing them as part of the University course; still I would regard them as useful. It is very well to have them for the sake of such men as I have mentioned, if they preferred to go to the professors' assistants; it might be not only a personal but a national benefit, that they should acquire a knowledge of Greek, Latin, and mathematics in those classes, their attendance, however, not counting for a degree until they could pass an entrance examination, and be admitted into the University.

9377. *Dr. Muir.*—Don't you think a good many would prefer much rather going to the junior classes in the University than to a secondary school?—I have just mentioned two cases in which it was quite voluntary on the part of the young men to go to the secondary school. I think Mr. Jamieson adopted the wiser course; he got a varied course of study of ten months in place of five. I don't remember now what classes he took; but I think that when he entered he had just a little Latin and Greek, and he entered the classes in those he was qualified for.

9378. *The Chairman.*—But if you keep up the junior classes, would you make it a condition of anybody entering them that he should pass an entrance examination?—No, if it was not part of the University course,—not if it was merely a sort of preparatory school outside the curriculum and preparatory to it. I can understand that there are men of talent, who might be quite deficient in Latin and Greek and mathematics, and unable to take an entrance examination, but who, from their comparative maturity of mind, might attend with great advantage the logic class, or some other advanced class where mere language is not required; and in the meantime they could attend the professors' assistants' junior classes.

9379. I do not understand you to mean that a failure to pass an entrance examination should exclude a man from attendance at the University altogether?—No. I don't mean that: I merely mean that he should not be admitted as a regular student, or that his attendance should not count as part of the curriculum. And in regard to amateur students,—gentlemen who have no intention of entering on any professional course,—there is no necessity for their being examined unless they choose.

9380. *Mr. Campbell Swinton.*—That would not get rid of one objection to the junior classes—namely, that they are what you call rivals to the secondary schools?—No, I merely think that if they are kept up they might be utilized. I have a very strong feeling in regard to such men as those I have mentioned—namely, that it would be much better for men such as I have been referring to, to go to a burgh or secondary school.

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So long as they are going to school they remain boys or lads, not young men, which they always become in their own estimation when they enter a University. They would apply themselves quite as diligently to their work at a school such as I refer to; and, besides affording them a wider range of instruction, it would be very much cheaper for the parents,

9381. How would it be cheaper?—They would secure in our smaller burghs lodgings at a cheaper rate.

9382. *The Chairman*.—Cheaper living, do you think?—I think so; and they would be nearer home, from which they might get help.

9383. *Dr. Muir*.—You are considering the case of young men from villages?—Yes, and of limited means.

9384. Not living in towns such as Arbroath, but in the country?—Well, if they were living in Arbroath, they would attend our High School, and have the advantage of living under their parents' roof; and our railways intersect the country to such an extent that the matter of distance is not so important as it once was. They can be taken to our burgh schools without much difficulty in most cases.

9385. *The Chairman*.—The subjects of examination at the entrance examination you would make Latin, Greek, and mathematics?—It might be extended eventually to include English, Latin, Greek, mathematics, and say arithmetic; these are the more important branches.

9386. By whom would you think these examinations should be conducted?—By the gentlemen who assist in the examinations for the degrees, and, if necessary, a certain number of others of like standing. I think that the rectors in our burgh schools, and in other secondary schools that I have any knowledge of, are perfectly competent to prepare young men for an entrance examination. I know that in Forfarshire it is so in all our burgh schools; and they deeply feel the withdrawal of some of their best pupils, who often go to join the University classes instead of continuing to study under them. They think that a great hardship.

9387. *Dr. Muir*.—Are there many village and primary schools in your neighbourhood in which the masters are able to teach Latin and Greek?—I should say not many now. I am sorry to come to the conclusion that we must not depend on our parochial and primary schools now. First of all, the teachers have not time to give sufficient instruction in the higher branches. They depend on Government grants; and the large percentage of the children are not at all likely to take those higher branches, do not wish them; so that the teachers require the time to get their pupils up to the standard required by Her Majesty's Inspectors. And then the younger men are not usually competent. Nominally they may know a little Latin and Greek; but judging from my experience as a parish minister, with many opportunities of forming an opinion on the subject—(for I have been in the School Board since the passing of the Act)—the younger men are quite incompetent to teach those higher branches to any good purpose,—quite incompetent to teach beyond the merest elements. Of course, there are exceptions to that rule. If you go to the north, where the Milne and Dick bequests exert their influence, there is a higher class of teachers. Those counties are quite exceptional.

9388. *The Chairman*.—What do you say to the present length of the University session?—I think it is much too short. I think it should be extended very considerably.

9389. What would you propose in the way of extension?—I should like very much to have a system of this sort: a session of virtually nine months, to commence say on the first Monday or Tuesday of October, and last till within a few days of Christmas; then a few days of a recess; begin again in January, and extend to the end of March, or the first or

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second week in April; then another short recess; and another session from May to the middle of July.

9390. You would have three terms?—Yes, of about ten weeks each.

9391. With a vacation between each of how long?—At Christmas, say a fortnight—according to the day of the week on which Christmas falls. I think there should also be a fortnight or three weeks in the spring time. I would be quite pleased if they had a month then; let the term end on the last Friday of March.

9392. And the third term in the end of July?—Or the middle of July: the ten weeks could be up by the middle of July. That would give us what we have contended for long—a summer session. If you had entrance examinations I think you could dispense with a second attendance in the case of ordinary students in Latin, Greek, and mathematics; though men fond of these subjects, or deficient in them, might go back if they chose. If there was a nine months' course, such as I refer to, the students generally might complete their curriculum in Arts in three years, the same as almost in every other University;—at least the B.A. degree is taken in that time in Oxford and Cambridge, and Trinity College and the Queen's Colleges in Ireland—which latter, perhaps, form a better guide to us than any of our other British Universities, in respect of the means at a student's command for acquiring preparatory information in classics and mathematics.

9393. *Mr. Campbell Swinton.*—Don't you think the means of the students might be an obstacle to your plan?—I would adapt it to the poorer student in this way: I would make it optional for him to take the third term whenever he could. We shall say that he enters in any class as at the commencement of this year. At the end of the present session his means are exhausted, and he must go home. He can't remain during the summer. Well, he might return in another year with a heavier purse, and be able to take his Latin or Greek—in which he was not well up when he first entered—in the second summer of his course; and so with mathematics. I do not see any necessity for lengthening the session as regards logic, metaphysics, and moral philosophy; but in natural philosophy it should be extended. And as to English literature, if there was an entrance examination, I think our present session would be sufficient for it.

9394. *Mr. Campbell Swinton.*—Then would your summer session be conducted by the professors?—I should like that; that the sessions should count in the curriculum. It would therefore be necessary to have the professor conducting them eventually.

9395. *The Chairman.*—Don't you think the professors would consider it a hardship?—I have no doubt they would at first.

9396. They would be obliged to remain for ten months of the year in the city?—Or nine or nine and a half months; I daresay ten months at first. But the system might be gradually altered. Perhaps if their assistants are all thoroughly qualified men, they might be allowed to conduct part of the summer session.

9397. But if you required the professors to remain for so large a part of the year in attendance on the University, don't you think you would not have such able men becoming candidates for the chairs?—There is something in that; but they do such work in other Universities—at least in the Queen's Colleges. There is not so much professorial work in the English Universities, through the tutors taking so large a part in the instruction communicated.

9398. Do you think any of the professors in the English Universities

have so long a period to work as you are proposing for our professors?—I suppose no single professor has.

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9899. *Mr. Campbell Swinton.*—Is there any analogy between the position of tutors in the English Universities and our professors?—Our professors are both professors and tutors. They have to do the work practically, to some extent, of tutors even though they have assistants.

9400. Is there analogy between the position of our professors and that of tutors in the English Universities? Are not these tutors—the great majority of them—men who are looking to higher reward,—our professors being professors for life?—Yes. Of course there is a difficulty in regard to that. But if such a system as I have described were adopted, the emoluments of the professors must be materially increased. Their emoluments are not at present too large for the work.

9401. *The Chairman.*—You would increase the emoluments not only as a matter of justice, but for the sake of keeping up the standard of the professoriate. What addition to the emoluments would you propose?—I suppose if they taught for a third more of their time, they would, as a rule, require something like a third more added to their incomes.

9402. You mean to their total emoluments?—Yes.

9403. I don't suppose your proposal of extending the session would increase their emoluments much from fees, and you would require to provide it by endowment, would you not?—Yes; but it might also be partly by fees. I am persuaded that the fees might be raised quite safely in the Arts classes. The fees are considerably higher in the medical classes, for example.

9404. But is not that because there is a great deal of expense attending the conduct of these classes?—Yes; more expensive to the students also, and the fees are higher to begin with, if I remember rightly. At all events, I am persuaded the fees might be safely raised very considerably in the Arts. If we had a summer session, the fees ought to be at least six guineas, in place of three guineas—that would be two guineas a term. I am fully persuaded there would be no hardship to the student in that. It is not the fees, but the expense of living that causes the difficulties.

9405. But if you double the class-fee and require the student to remain at the University for ten months, or alternatively to go away in these short vacations, and come back again, with the concomitant travelling expenses, don't you think you will make the student's life at college much more expensive than now?—I don't know; there would be just one vacation more. At present they very generally go home at Christmas.

9406. What is the length of the Christmas recess now?—I think about a week, or a few days more; ten days, perhaps; it depends on the day of the week, or upon how Christmas and New Year fall.

9407. Have you anything to suggest with regard to bursaries in connection with secondary schools?—I think such bursaries would be of great advantage to the country. It would meet the difficulty which I spoke of a short while ago, of young men having to go to the burgh schools or secondary schools in consequence of primary schools being no longer able to give instruction in the higher branches.

9408. Do you mean bursaries to be held by boys at school or students at the University?—Boys at school; there might be both. The great thing, however, for the sake of those I refer to, would be to encourage the foundation of bursaries in connection with secondary schools.

9409. To be held by boys attending the schools?—Yes.

9410. So as to encourage them to go there?—Yes. In Arbroath, at

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present we have four scholarships that give free education in our High School, which is one of the higher-class schools recently made. I know there is a strong disposition among men of means with whom I have met to encourage that.

9411. Do you mean to found such bursaries?—Yes, in connection with such schools.

9412. Is there anything else connected with this subject you have to suggest?—I may mention in regard to the extension of the session, that a considerable number of the professors in this city (I shall not mention names, of course), with whom I have had a good deal of intercourse in these matters, are perfectly prepared to extend the session. I speak generally,—for their evidence may have been received, or may yet be received by you,—but I also speak advisedly when I say that they would not object to the session commencing early in October, and continuing till the end of April. I believe such a change—which I mention as an alternative to the suggestion I made a little while ago—would be effected without any difficulty on the part of the professors.

9413. If they could escape the summer session?—Yes. They feel that the present session of five months is very much too short. It introduces a system of over-pressure on the part of the professor, and a system which approaches cram on the part of the students. They must get over a certain amount of work, and they have so little time to do it in when they get long lessons to prepare at home.

9414. Is there any other subject on which you desire to offer any suggestions?—Under head 6, I may say that I should like very well to see—(although it is not likely to be accomplished unless the Church does something in the matter)—to see a Professor of Natural Theology and of Christian Evidences—I mean to separate that from the present chair of Theology—and also a chair for Pastoral or Practical Theology. We need that very much in training for the ministry.

9415. *Dr. Muir*.—Is that the only suggestion you have to make in regard to the Theological Faculty?—Yes; that is the only one occurring to me. At the same time, I may remark that what Professor Flint said in his introductory lecture is quite true. It is impossible for any professor, however able and however energetic, to go over the whole field of theology in the short time now allotted to the professors. They would require a summer session, at all events, if the work were to be done to any good purpose. The subject is a very large one. And I should suggest that for these two departments—there may be others also—there might be lectureships to begin with.

9416. It has been suggested by one gentleman here that the chair of Theology might be thrown open to members of all the Presbyterian Churches in Scotland?—Well, for my part, I should have no objection to that, if you are likely to secure more efficiency by so doing.

9417. Have you any idea how such a proposal would be received by your brethren in general?—I have not heard opinions expressed on the matter. I remember reading Principal Tulloch's views on that subject a good number of years ago, and I have heard them criticised rather severely in some quarters. If, however, the matter were brought before the Church, many might be of my opinion.

9418. Another gentleman proposed that all the theological chairs should be put into the hands of the Church, and that the Church of Scotland should appoint the professors in each case, and he expected that large emoluments and endowments would be granted to the chairs. What do you think of that?—I should prefer to keep the Theological Faculty in connection with the national Universities.

9419. You think such a proposal would make the faculty more a denominational thing?—Yes; I think it would lower its character, and despoil the University of one of its highest distinctions in a Christian land like this.

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9420. Another proposal was that certain of the Universities—say St. Andrews and Aberdeen—should teach particular departments, so that a student, by attending a winter and a summer course in the two, would get a fuller and completer course than by attending any single University?—No doubt there would be certain advantages in that respect, but young men, as a rule, get attached to the University they have commenced attendance at, and they form little ties which they do not like to break. I have no doubt, however, that great advantages might accrue from such a system. To return for a moment to the question of entrance examinations, I omitted to say that I have known a good number of young men who went to the University without adequate preparation. One instance I have before me just now, of a young man who went to Aberdeen, where they have a sort of voluntary examination—a competition for the bursaries. It is not creditable for a young man not to attempt these, but they are not compulsory; and many fail in them, without being thereby prevented from entering the University. Another young man went to another University where they have no entrance examinations at all, and both were admitted. Well, I think it was cruel to them to be allowed to enter the University without adequate preparation. They are allowed to go through the University, and then they are stopped by these examination boards of ours, if they are going into the Church, as those two young men I have mentioned were. If they had been prevented from entering the University without a certain amount of preparation, that would not have happened.

9421. Then in your experience the examinations made by those examination boards are of a high standard?—They are stringent, but not of a very high standard. They are fairly conducted, and I have no doubt the standard will be raised. It is intended to be raised in mathematics. They only require the first three books of Euclid just now, and in algebra up to quadratics. In Latin and Greek, the examination is fair enough. It depends much on the examiner. No matter how many books you prescribe, if you examine thoroughly on a book, you can bring out what a man knows.

9422. *Mr. Campbell Swinton.*—Those examinations are considerably higher than the average of presbyterial examinations used to be?—Higher than they were in practice; but we were rather indulgent sometimes from local delicacies.

9423. *The Chairman.*—In short, you think that change of examination in the Church is in the right direction, and tends to a higher standard?—Undoubtedly.

9424. *Mr. Campbell Swinton.*—Both to a higher and a more uniform standard?—Yes. I may mention in this connection an interesting letter I received a good while ago from President M'Cosh, of Princeton College, New Jersey, a man of distinction. I wrote to him on the subject—he being connected with Arbroath—twelve years ago, when I first moved in this matter. He says in his letter:—

‘You are quite right in stating that we have fewer grammar schools in any part of Ireland than you have in Scotland. I have been labouring to have this state of things improved, but have hitherto had only a small measure of success. You are also correct in stating that the students are in the same circumstances in our college as in yours, or poorer. To enable you to understand the length of our terms, I may mention that

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they are regulated by Christmas and Easter, the latter of which is a moveable feast.

'We require the matriculated students to undergo an entrance examination. The examination, though not very high, is a *bonâ fide* one. The person passing must possess a considerable knowledge of Greek, Latin, and mathematics, and know something of history. In consequence of this requirement, students imperfectly educated in country districts commonly take a year or so at a grammar school in Belfast, or in some other large town, before coming to college. Students of this description often go directly to college in Scotland. I have known students who knew that they could not pass in our college going from Ulster to Glasgow. It is altogether for the benefit of students that they should take this year at an upper school rather than enter college when they have not been thoroughly instructed in the elements, for they receive elementary instruction much more effectively in an appropriate class in a well taught academy than they could do in a miscellaneous class in college. Surely I need not add that it is greatly for the benefit of the college that the professors are not necessitated to do the work which should be left to the school.

'Our A.B. here corresponds very much to the A.M. in Scotland. The candidate has to attend three sessions, each running over three terms. The long vacation is only a little above four months. In comparing our system with that of Scotland, it might seem a hardship to the poor student that he has with us so short a vacation to enable him to earn what may help to keep him the following winter. But the poor students have a way of meeting this. After the first, or more frequently after the second session, they leave us for a session, and have a year and four or five months in which they lay up by teaching a sufficient sum to carry them through the remainder of their course, which is completed after all in four years.

'To meet the cases of persons not regularly trained at school, we draw a very defined distinction between matriculated and non-matriculated students. The latter undergo no entrance examination, and receive certificates specifying what they have done. The Presbyterian Church accepts such when the student is certified as passing the testing examination to which all students are subjected at the close of the session; but the Church draws a distinction. It admits to the theological classes at once all graduates, but it carefully examines those who produce merely non-matriculated certificates.

'The great body of our students in Arts are matriculated. It is an interesting circumstance that the great body of our matriculated students go on to graduation. As a general rule, all our abler and more distinguished students take the degree of A.B. in the Queen's University, and many of them in a subsequent year the degree of A.M., for which they undergo a second examination of a special and more thorough kind in a limited group of subjects chosen by themselves. The consequence is that we have always a number of graduates in our college attending advanced classes, greatly to the promotion of a higher learning among professors and students. My work on the *Intuitions* was delivered to such a class of graduates, or rather to a succession of such classes, before it was given to the press.'

At that time a committee was appointed, in which was a large number of distinguished professors of the day, and we proposed a scheme by which the three terms might be carried out without prejudice to the students.

9425. In what college was Dr. M'Cosh then?—He was Professor of

Moral Philosophy in the Belfast College. In regard to summer sessions, I was looking into the German Calendar, and I find that their winter session begins on or about the 13th October, and goes down to the end of March; then the summer session begins at from the 10th to the 16th of April, and extends to the 12th of August, or about that. They seem to do that in all departments, so that our system would not be a novelty in University teaching.

9426. *Mr. Campbell Swinton.*—Do you know that those German students pay no fees?—I did not. But you see the professors do work during winter and summer.

9427. *The Chairman.*—Are you sure of that—that any one professor works all that time?—I am not quite certain; but I observed several names of the winter course that recur in the summer one. I had not time to go into all the details; but I looked at the matter, and took some ten or eleven instances, and the dates on which they commenced, and I brought that along with the letter as a proof that the summer session would be no novelty in the estimation of many. I consulted Dr. Bryce on the subjects on which Dr. McCosh speaks, and his opinion was pretty much the same.

Adjourned.

SATURDAY, 27th January 1877—(Fifty-Second Day).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman.*

THE DUKE OF BUCCLEUCH.

SIR WILLIAM STIRLING-MAXWELL, Bart.

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

Professor RUTHERFORD, M.D., examined.

9428. *The Chairman.*—You are Professor of the Institutes of Medicine in the University of Edinburgh?—I am.

9429. How long have you held that chair?—For two years and some months.

9430. I believe that the evidence you have to offer is principally upon matters connected with your own chair, and with the Medical Faculty?—It is.

9431. Will you favour us with your opinions as to the course of study and regulations for graduation in the Faculty of Medicine?—I may say, in the first place, that I am anxious to have an addition made to the title of the subject taught by me. The present title is 'Institutes of Medicine or Physiology.'

9432. Are these the words in your commission?—No, not in the commission. There the title is only the 'Institutes of Medicine;' but in the subject as named for study, in Ordinance 5, clause 1, sec. 5, it is 'Institutes of Medicine or Physiology.' I am anxious to have the following words added to the title, as stated in that Ordinance:—'Including Microscopical Anatomy, Physiological Chemistry, and Physiological Physics.' My reason for this is, that I find a tendency on the part of some of my esteemed colleagues—especially the Professors of Anatomy,

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Professor
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Edinburgh.

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Rutherford,
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Chemistry, and Natural Philosophy—to encroach on my province somewhat in their teaching; and I am therefore anxious to have some authoritative statement from this Commission that my subject includes those three branches I have named—microscopical anatomy, physiological chemistry, and physiological physics. Perhaps you will allow me to remark that the term ‘Physiology,’ derived from *φύσις*, *nature*, and *λόγος*, means literally natural philosophy; but for a long time it has been taken simply to mean the functions of the various tissues and organs of the body. It is impossible to study the functions of these tissues and organs without having constant reference to structure, and also without having constant reference to chemistry and to physics; because physiology really rests on this tripod of anatomy, chemistry, and physics. In the early history of medical education, the subjects of anatomy and physiology were professed by the same teacher; but as the subjects became more extended, it was found expedient to have two teachers,—the one devoting himself specially to the consideration of structure, and the other to the consideration of function. Now, it came about that the professor who took the consideration of function included in his course microscopical anatomy, because it is quite impossible to explain the functions of the tissues and organs without having constant allusion to their minute structure; and the Professor of Anatomy proper took also, as a part of his course, the consideration of the functions of the grosser parts of the body,—more especially those of the bones, joints, tendons, ligaments, and muscles,—because really, unless the functions of these parts be added to the statement of their relations and structure, the student is not particularly interested. At any rate, the tuition of the physiology of these parts can certainly be most conveniently conducted in the special anatomical course. Now that is the way in which the tuition of these two subjects is carried on in London. The Professor of Physiology is also the teacher of microscopical anatomy, and the Professor of Anatomy gives the physiology of the parts I have mentioned,—the bones, joints, tendons, ligaments, and muscles.

9433. In what London institutions?—In the various Medical Schools of London. Having been in London for five years, and being an examiner in the University of London, I can certainly say that that method of tuition answers remarkably well. In Edinburgh, however, there has been for many years an endeavour, on the part of the Professor of Anatomy, to maintain that the whole of the structure of the body properly belongs to him, and that the Professor of Physiology ought to teach nothing but the functions of the parts of the body.

9434. When you speak of his encroaching on your province, is there any practical objection to your both teaching it?—There is very much objection to our both teaching it to the same extent; but if you allow me to finish what I have to say, you will apprehend more readily the bearings of the question. I think that to carry out such a division of the subject as the Professor of Anatomy desires,—that is to say, to have the Professor of Anatomy speaking only of structure, and the Professor of Physiology speaking only of functions, is not expedient, and, as a matter of fact, the Professor of Anatomy in Edinburgh does teach the whole of anatomy, macroscopical as well as microscopical; and, in addition to that, he does teach a very considerable share of physiology; and I think it is expedient that he should continue to teach a considerable department of physiology. On the other hand, I think it quite as expedient that I should teach a considerable part of anatomy, viz. microscopical anatomy; because it is really impossible to give a course of physiology properly without entering into microscopical anatomy. I

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am not suggesting that the Professor of Anatomy should be inhibited more than would naturally accrue from an authoritative statement that the course of physiology includes microscopical anatomy, in order that I may be more definitely recognised as the teacher of that department. So also with chemistry and physics. The Professor of Chemistry tends more and more to teach the whole department of chemistry. Well, I do not think it expedient that he should do so; because, if he enters into the chemistry of respiration, or the chemistry of the blood, these are things that I am obliged to teach in my course, and it would come to be with physiological chemistry, as it now so largely is with microscopical anatomy, useless repetition. In regard to physics, again, there is a distinct tendency on the part of the Professor of Natural Philosophy to claim the tuition of physiological physics. Of course, all this comes about really from the fact that there must always be more or less of overlapping. The whole division of medical education is one of expediency, and there must be the overlapping of one subject over another; but I think it expedient that this overlapping should, as far as possible, be prevented. I have to lecture to students in their second year, after they have attended a course of chemistry and a course of anatomy. They attend these in their first year, and I find that the edge of their interest is considerably taken off by the circumstance that the Professor of Anatomy has already gone over the whole subject of microscopical anatomy; and if the Professor of Chemistry were to go too much into physiological chemistry, the result would be similar; and if natural philosophy were added to the curriculum, it might come to be the same thing with physiological physics. Therefore what I ask of the Commission is, that it should be definitely recognised that my subject includes microscopical anatomy, physiological chemistry, and physiological physics. I believe that that would tend to prevent disputes regarding the tuition by me of the subjects mentioned.

9435. Do you suppose that your colleagues would have any objection to that suggestion?—I do not know whether the Professor of Anatomy would object to it or not; but I don't think that any objection would be reasonable.

9436. *Dr. Muir.*—Is there very much in his course which does not naturally come into yours, and, *vice versa*, is there a great deal in your course which does not naturally come into his?—The Professor of Anatomy might properly claim to teach everything on the anatomy of the body,—that is to say, on the structure of the body,—but I look at the whole matter as a question of expediency. I do not think it expedient that he should devote too much of the students' time to microscopical anatomy; because I am obliged, in the second year, to teach that subject in order to explain the functions of the tissues and organs.

9437. But is there a great deal that you teach which does not properly fall within his course, and *vice versa*?—Certainly.

9438. So that a separate chair for Institutes of Medicine is a necessity?—Quite a necessity. It unites considerations founded on anatomy, chemistry, and physics, which could not be united by any other professor.

9439. *Mr. Campbell.*—You do not propose to extend your course of teaching beyond what it is at present?—No; I merely wish to retain what I now have, because undoubtedly there is a tendency on the part of every professor to render his teaching as complete as possible; and I find the Professors of Anatomy and Chemistry tending very strongly indeed to teach more and more fully the subjects that are essential parts of my course of instruction.

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9440. *The Chairman.*—Have you any information as to how this question has been settled, or whether it has arisen in the other Universities?—I am not aware that it has arisen. The chair is called the Institutes of Medicine in the Scotch Universities generally. It is called Physiology in other countries. The term 'Institutes of Medicine' is an old one, and included pathology, therapeutics, and physiology. It is now almost entirely a physiological course.

9441. You do not know whether any such additions as you suggest are recognised in other Universities in the title of the chair?—These subjects are, so far as I am aware, all taught by every Professor of Physiology. I do not think it would be necessary to add them to the title of the chair as in the commission; it is a mere addition to the title of the subject which the student has to study in order to obtain his degree. It would render his idea of what it comprehends more definite.

9442. Have you anything to say with regard to the course of study?—On that subject I beg to recommend that to section 5 of Ordinance 5 there should be added the subjects of practical physiology and practical pathology.

9443. As compulsory subjects?—Yes. Practical physiology consists (1) of practical histology,—that is to say, the study, with the aid of the microscope, of the various tissues and organs of the body; (2) practical physiological chemistry, in which the student analyses the secretions, and some of the tissues; and (3) practical physiological physics, in which he studies the use of the laryngoscope and ophthalmoscope, and various other instruments. The tuition of this subject has been carried on in Edinburgh for the last thirty years. It was begun by Professor Bennett. It is now compulsory in the University of London, the University of Cambridge, and the Colleges of Surgeons and of Physicians, London; but it is not yet compulsory in any of the Scotch Universities. To render it compulsory would not add to the work of the students, because already all the students, with the exception of perhaps three or four per cent., take the subject of practical physiology, and have taken it for a number of years, so that really the effect of rendering it compulsory would only be to render the education of three or four per cent. of the students more complete than it now is, and would prevent their committing the serious mistake of neglecting a subject of such importance.

9444. That subject is not at present included amongst the subjects for examination?—Not amongst the compulsory subjects.

9445. In short, the students learn it, but you want them to be examined in it?—Yes; much more fully than they now are. Then, with regard to practical pathology, that class is also of very great importance. The student is taught to recognise with the naked eye the morbid conditions of tissues and organs, and also to examine them with the microscope. Proper provision has now been made for the tuition of the subject, and the course in Edinburgh is a very attractive one indeed. So full a course is not to be got elsewhere in this country, and there can be no doubt that a student is very much better educated if he attends that course of practical pathology than he would otherwise be,—indeed, it is essential, if he is to be fully educated.

9446. It has been proposed to add natural philosophy to the list of compulsory subjects. What do you say to that?—I should say that natural philosophy already receives a considerable share of attention from the students. Mechanical philosophy and hydrostatics are at present compulsory. They are embraced in the preliminary examination for

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medical students; and really, if one looks at the questions that are given in those two departments of natural philosophy at the preliminary examination, I think one would admit they are as difficult as they ought to be if the subject formed part of the general medical curriculum. I have no doubt that if the subject were divested of its preliminary character, and if to mechanical philosophy and hydrostatics were added a knowledge of the laws of light, heat, electricity, and sound, the subject would become so extensive that the medical students would not be able to study it and at the same time complete their course in four years. We should have to add a fifth year to the medical curriculum, for the subject of natural philosophy is an immense one, and already the students have as much to do as they possibly can. Even now, a good many of them fail to complete their studies for the degree in four years.

9447. Then you rather think that the examination in natural philosophy should form part of the preliminary examination?—I rather think that the subject should remain as it is unless a fifth year be added to the medical curriculum. No doubt it might be suggested that possibly some subject might be cut out in order to permit of natural philosophy being introduced. It has been suggested that botany or natural history might be rendered optional, so that the student may be enabled to take natural philosophy, for of its importance there can be no doubt whatever. No doubt that would diminish the labour the student would have, and might allow of the subject being included and the four years' course still retained.

9448. Might the preliminary examination not include a considerable amount of botany and natural history?—I think not; because tuition of those subjects is not provided for in the schools throughout the country, so that the student would require really to come to the University in order to learn the subjects for the preliminary examination.

9449. Which in itself would be an advantage?—No doubt it would, but that would simply mean an addition of a fifth year to the curriculum.

9450. A fifth year to the University curriculum, though not to the medical curriculum?—It would be a very great advantage indeed if the students were all to take a full Arts course, and to take the degree of M.A. before going on for their degree in medicine. We can notice that the student who has taken the degree of M.A. almost always readily excels those who have not. But the difficulty is that there are a great number who are not possessed of sufficient funds to enable them to do that. I therefore submit, that unless the Commissioners see their way to make the medical curriculum extend over five years, there would be a difficulty in altering the position that natural philosophy now holds.

9451. And I gather from what you say that you would not think it advisable to make the curriculum five years?—At present it is scarcely advisable.

9452. What position does pathology occupy just now in the order of examination?—It is taken at the second of the professional examinations for a degree in medicine. It is taken at the end of the student's third year; and I am quite convinced that it is inexpedient to have it in that position. I believe it would be advantageous for the student if the subject were relegated to the last examination,—viz. the third, at the end of the fourth year,—because the subject of pathology fits in with medicine and surgery most directly, and those subjects are not passed by the student till the end of his fourth year. I have always observed that students have very great difficulty with the subject of pathology. It is an exceedingly difficult subject, and at present it is very largely taken away from its connection with surgery and medicine by its having been

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of late years placed in the second examination. I am quite sure the students could pass their examination in it more easily at the end of the fourth than at the end of the third year.

9453. It has been suggested to us that, as a general rule with regard to examinations, a student should pass his examinations not necessarily in the prescribed order, but in every branch immediately after he has attended the course in that branch.—I do not believe that that method would be found to work well. I think there would be a difficulty in managing the examinations. I fear that the number of rejections that would take place would be so great that many students would be discouraged. I think that it is better to retain the examinations as they stand just now,—the three examinations taking place at definite periods.

9454. *Dr. Muir.*—Is not a student apt to be embarrassed while he is studying one department in which he is about to be examined, by having to retain his knowledge of subjects which he has previously studied and in which he has still to be examined?—No doubt he is to some extent embarrassed; but he must always be more or less embarrassed in studying a subject so difficult and complicated as that of medicine.

9455. It has been suggested to us by some of the medical professors that a student, while attending one course, is obliged to keep up his mere technical knowledge of a previous course in which he ought already to have passed. But you rather think the present system to be best?—I think, on the whole, the present system the better of the two; because a student must always be embarrassed when he is studying more than one subject during a session, and he must, in point of fact, study two or three subjects during each session, and he is bound also to keep up his knowledge throughout his life to a certain extent. I am afraid that no system would ever relieve a student from some embarrassment. I fail to see any sufficient ground for changing the system of examination now adopted. When I was a student, we had to pass one examination in chemistry, botany, and natural history at the end of our third winter session, along with anatomy and physiology. That was certainly embarrassing. Now things have been rendered very much easier, by placing the examination in chemistry, botany, and natural history at the end of the first year, although many fail to pass until the end of their second year. Some who teach the subjects of the final examination are anxious to have the student devote more time to them, by shifting the examination in anatomy and physiology from the third to the second year. The result would be an ephemeral knowledge of these fundamental subjects, due to cramming for the early examination. The student would then, in after life, encounter the very serious embarrassment of having had only a transient knowledge of essential subjects.

9456. *The Chairman.*—What is your view with regard to the expediency of instituting a separate Faculty of Science?—I think that would be advantageous to the University. If there was a separate Faculty of Science, we should have Science degrees more carefully attended to, and all matters in that connection more thoroughly looked into; and, on the whole, the taking of Science degrees by the students would be facilitated, and we should have an increase taking place in that direction.

9457. What classes would you include in a Faculty of Science?—The chairs of Mathematics, Natural Philosophy, Chemistry, Zoology, Botany, Physiology, Geology, Engineering, and Medical Jurisprudence.

9458. Possibly, I suppose, you think that some of those chairs should also be included in other faculties?—Certainly.

9459. Mathematics, probably, could not be taken out of the Faculty of

Arts, though it might be in both faculties?—Yes; and medical jurisprudence must belong to the Faculty of Medicine as well.

9460. That chair now belongs to the Faculty of Law?—Quite so. The professor would attend the meetings of this or that faculty in order to explain matters for the consideration of the members of the faculty.

9461. Is that all you have to say about a Faculty of Science?—That is all I have to say in that connection.

9462. Do you think that any new professorships are required in the Medical Faculty?—I am not able to suggest any. It does not occur to me that we want any new chairs.

9463. It has been suggested to us, that though no new professorships are wanted it might be desirable that lectureships in special departments were instituted.—I am not aware of any. Take, for instance, lectureships upon the subject of ophthalmology or upon diseases of the larynx. These belong to the Professor of Surgery, and I believe the Professor of Surgery is responsible for their tuition; and if he did not teach them, it would devolve on the Medical Faculty to ask him to make provision for their tuition.

9464. We have been told there ought to be a lectureship for the extensive subject of mental diseases.—Formerly the Professor of the Practice of Physic was able to give lectures on that subject in addition to his own course.

9465. A separate course of lectures?—He gave a separate course of lectures in the summer time.

9466. *Dr. Muir*.—Is it with his department that it is most naturally connected?—It most naturally belongs to the Practice of Physic, and if he does not desire to do it, the natural way is for him to ask a competent person to give a course of lectures. It seems to me that that is the easiest way of providing for the tuition of the subject and of keeping up that harmony which should exist amongst University teachers.

9467. But the assistant is generally a young man. Would he be competent?—He need not necessarily be a young man. I should think that the Professor of the Practice of Physic would naturally ask the director of Morningside or some other asylum to give such a course, and to take the students out with a view to the examination of patients in the asylum. The previous Professor of the Practice of Physic did ask *Dr. Clouston*, of Morningside Asylum, to give his course of lectures for him, and to take the students to see his patients; and the system worked very well.

9468. *The Chairman*.—To what extent is the present provision for assistance and apparatus in your department adequate?—I find I very urgently require two assistants instead of one. My present assistant is paid £100 a year out of the University funds; but £100 a year is now no longer so large a sum as it used to be, and I would suggest that, if possible, the various assistants, who now get £100 a year, should have £150. I would also suggest that I should have two assistants for my department.

9469. Both at that salary? Or would a smaller sum be sufficient for the second?—The second assistant might have £100. I should say that I pay an additional salary to my assistant. I am not suggesting that the whole of the salaries of the assistants should be paid from the general fund.

9470. With regard to apparatus, what have you to say?—I think it would be advantageous in my department to make greater provision for apparatus. When I came to the University of Edinburgh, I found that my predecessor had sold all his own apparatus,—microscopes and diagrams,—and I was obliged on a month's notice to spend £1000 on

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Edinburgh.

apparatus and other material perfectly essential for tuition. It was very difficult for me on so short notice to get that material collected, and if I had not been in an advantageous position in London for doing so, my course, I think, would have failed. It seems advisable to provide against such a contingency in all the departments of the University, and so far as possible to provide apparatus and material, and have it permanently in the University.

9471. Can you give us any idea what sum would annually be required for that purpose?—In order to provide for class expenses, and for the purchase of apparatus, I would require £150 a year.

9472. *Dr. Muir.*—Do you get anything at present?—I get £50 a year, and in addition to that I myself spend £110 a year.

9473. *The Chairman.*—Do you think there should be any change in the length of the sessions?—I think it is inexpedient to change the time of commencement and ending of the two sessions. I think it well that the winter session should begin with November, and close at the end of March, and that the summer session should begin with May, and close at the end of July. It has been suggested that the winter session should begin in October, as in London, but the consequence of such a change would be, that, instead of giving five lectures a week, we should only have to give four, and I do not think that is advisable. It is better the students should attend lectures on five days a week than that they should attend only on four. Besides, to begin on 1st October would add a month's expense to the year, and that would be a serious matter to many students. I think the present system works exceedingly well, and it is not desirable to have it changed.

9474. When you say that the change would lead to your lecturing four days a week instead of five, you mean that the present session is sufficiently long to get through your course?—Yes, sufficiently long to give one hundred lectures on the subject of physiology. For graduation one hundred lectures are required, and I do not think it would be judicious to give more. The students would be wearied if one gave more lectures than a hundred.

9475. And you also say it would be a burden upon the students as regards expense?—I think it would be a needless addition to their expenses.

9476. Are there a considerable number of the medical students to whom the matter of expense is a serious thing?—I have no doubt at all that the addition of £5, £6, or £7 to the expense of the year would be regarded as a serious addition, for that would amount to £20 or £28 upon the whole four years' curriculum.

9477. *Dr. Muir.*—Such being the case, do you think the fees ought to be raised, or should they remain as they are?—I think that at present we ought not to raise the fees, in the medical department at any rate. The Arts Faculty have proposed to raise their fees, but no such proposition has been made by the Medical Faculty. I do not think it would be at all judicious to raise the fees till we get to the new buildings.

9478. The Arts fees are lower than yours?—Yes. In regard to the question of fees, I think it would come to be an important consideration whether there should not be a revision of the medical fees. Perhaps some might be raised and others lowered; at any rate, it would be well to have a reconsideration of the fees obtained by each of the professors in the aggregate from the students, so that there should be as much as possible an equality preserved in the taking of the fees.

9479. *The Chairman.*—But you do not think it would be advisable to make any change till you get into the new buildings?—I am clear about that.

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Edinburgh.

9480. Do you approve of the rules at present existing on the subject of extra-mural teaching?—It has been proposed to throw the teaching quite open, and to allow the students to take all their classes outside the University. I do not think that would be advisable, and I think the present system of allowing one-fourth of the medical classes to be taken outside is a good one, and works exceedingly well. The effect of it is to keep up the University perhaps more than it would be otherwise kept up; but it is of great consequence in the school that there should be one important nucleus at any rate well maintained.

9481. Do you think that the existence of extra-mural teaching is on the whole a benefit?—I think it is of the greatest benefit in stimulating all to do their work thoroughly well. But there are some things which an extra-academical teacher might do, and which a professor in the University could not do; and if the teaching were thrown entirely open, there are some points of which the extra-academical teacher might avail himself, and which, on the whole, would not be advantageous to the school generally. I therefore think that the present rule observed as regards the medical classes works exceedingly well, and I hope it will not be changed in any way.

9482. *Sir William Stirling-Maxwell*.—Can you state what are the points you refer to?—The chief point is this: I have observed that of late years medical students are more and more having recourse to 'grinders;' and were the teaching thrown entirely open, I should anticipate that in the Medical—but still more in the Arts—Faculty very many students would, to save themselves trouble, prefer a system of cramming to that higher tuition which alone can be regarded as education. By compelling the student to take three-fourths of his classes inside the University, you would ensure for him a high-class training; but by allowing him to take a fourth of his classes outside, you would relieve him from the necessity of attending a University teacher who might fail to rightly discharge his duties.

9483. *The Chairman*.—Are there any other subjects upon which you would like to express your opinion?—There is nothing more I have to submit.

9484. *Dr. Muir*.—You spoke of preserving an equality between the professors in regard to fees; I suppose you mean the amount of the fees, and not the aggregate?—The amount considered, however, with reference to the aggregate. I would suggest that account should be taken of (1) the aggregate fees that each professor could receive from an average attendance at his class or classes; (2) the amount of time spent by him in the discharge of University duties; (3) his University expenses, endowments, and allowances. The consideration of these should determine whether the amount of his fee or fees should be more or less, or the same as that of other professors in the same Faculty.

9485. *Mr. Campbell*.—You propose that the examination of the students in pathology should be postponed till the fourth year?—Yes.

9486. Would you substitute any other subject for it in the examination at the end of the third year?—I do not think so. I think the subjects in the second examination are at present a little too extensive, and it would be well if they were restricted to anatomy, physiology, and materia medica, excluding pathology.

Professor VEITCH, examined.

Professor
Veitch,
Glasgow.

9487. *The Chairman.*—You are Professor of Logic in the University of Glasgow?—I am.

9488. And have been so for how many years?—Since 1864. I may mention that I was Professor of Logic at St. Andrews from 1860 to 1864.

9489. We should like to be favoured with your opinion as to the constitution and powers of the University Court?—I think an increase in the numbers of the University Court is desirable. I do not see any objection to the General Council sending up two members to the Court, instead of one as at present, and the Senate sending up another member, not necessarily from its own body. That would make in Glasgow a Court of nine members, which I think would be a fair increase in its members.

9490. You say the additional representative of the Senate should not be chosen necessarily from that body; but you would not make it necessarily from outside that body?—I would leave the Senate free to elect him either from their own body or not. My reason for that is, that the Senate is not only the teaching body of the University, it is also, subject to the control of the Court, the governing and administrative body. Its interests are those of the University. Its acquaintance with the wants of the University and with the workings of University arrangements is more intimate than that of the General Council can be expected to be. The Senate is a body specially and constantly engaged in academical work. Its representatives ought, therefore, not to be fewer in the University Court than those of any other University element. I may mention that in the German Universities the supreme governing body contains representatives of each of the faculties. There is a Rector or pro-Rector, a Curator, who represents the Crown, and an ordinary professor from each of the four faculties, so that the academic element is strongly represented in the governing body.

9491. *Dr. Muir.*—Is the Rector not a member of the professoriate?—Not necessarily.

9492. *The Chairman.*—Then you think the Court would be sufficiently large if there were two additional members?—I think so. I should not be disposed to have a University Court larger than about nine members. Besides, it is very difficult to get competent men to work on a University Court; you require special qualifications which are not easily got.

9493. And in other respects you would make no change upon it?—I would not. I have a word to say about the appointment of professors. I think a great deal might be said for a scheme which I proposed in 1868, for a common body in Scotland charged with the appointment of University professors. A local body, such as the University Court, in each University town, is exceedingly open to local influences, political and ecclesiastical, of the meanest and most unacademical sort. There is also the hereditary connection of particular candidates with the University or the neighbourhood. Those influences have been exceedingly powerful in University appointments, particularly in Glasgow, and they are so now. Hardly an election takes place in Glasgow apart from strong local pressure for the local candidate, whatever may be his merits. Those influences necessarily appeal powerfully to a locally elected body. If the appointments to professorships were with a body which had the charge of such matters over the whole Scottish Universities, removed from a local centre and from the party influences incidental to this, the appointments

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made would be a great deal fairer than they are. In a small centre such as St. Andrews, or even Aberdeen, where local influence is necessarily slight, appointments by the University Court on the merits of the candidates are far more certain than in Edinburgh or Glasgow. My only hesitation in recommending this scheme is that it might lead to a common Court both for the appointment of professors and the government and administration of the Universities. This latter result I do not think desirable. There should be for these latter purposes a special University Court for each University. Should a common Court be formed for the appointment of professors solely, I think it might be constituted by delegates or representatives from each of the University Courts,—say 3, equal to 12 in all, with a separate president.

9494. How would you have the president elected?—I think the delegates might be allowed to appoint him.

9495. To choose a president *ab extra*?—Yes, *ab extra*.

9496. *Dr. Muir.*—Would you allow the delegates to be selected by the University Courts?—Yes.

9497. *The Chairman.*—What have you to say with regard to the functions of the General Council?—I think it would be undesirable on the whole to extend the powers of the General Council of the University. It is not fitted for the government of the University, because it is too large and miscellaneous. It is likely on important occasions to be influenced by political and ecclesiastical rather than academical considerations. I should not be prepared to give to it more than powers of representation and recommendation to the University Court. These are very extensive and influential powers. A good and full debate on a point affecting University interests would be sure to have a proper and reasonable influence on both Court and Senate. This is the best kind of influence which a popular body can exercise. In 1874, a Bill was proposed by some members of the General Council of Glasgow 'to amend the Scottish Universities Act, 1858.' It contained a summary of nearly all the suggestions that had been made on the part of those who sought to extend the powers of the General Councils. This Bill was considered by the Senate of the University of Glasgow at the time. I have here the report of the Committee on the Bill (of which I was convener), which I may hand into the Commissioners. This report was unanimously approved by the Senate. The report represents on the whole my present opinions regarding the proposed changes in the interest of the General Council. There is one point in it that I should like to bring before the notice of the Commissioners. The most important provision of the proposed Bill is, 'that three assessors shall be elected by the General Council of the University of Glasgow in place of one, as prescribed by section 9 of the Universities Act.' I think such a provision inexpedient, and open to serious objections. 1. It would give an undue preponderance in the University Court to one of the electoral bodies. At present the Senate appoints one assessor as its representative in the Court, as the General Council does. The Senate elects the Dean of Faculties, who is *ex officio* a member of the Court; but, by long custom, he has not been a professor. Nor is he chosen as a representative of the views of the Senate, or on any other ground than that of eminence or special academical fitness. The Principal, who is *ex officio* a member of the Court, is appointed by the Crown, and he does not necessarily represent the Senate or its views. As President of the General Council, in the absence of the Chancellor, the Principal is as much a representative of that body as of the Senate itself. The proposal of the Bill, if carried out, would give a decided majority of representatives in the Court to the

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Council as compared with the Senate. It would make the representation of the Council in the Court equal to that of both the great officers of the University—Chancellor and Rector—taken together, and greater than the representation of either. The Chancellor of the University, who holds office for life, is elected by the Council, and he appoints an assessor in the Court. Out of a total number of nine (proposed) members in the Court, there would thus be four assessors who might be regarded as representing it in the Court. 2. The three assessors proposed to be appointed by the Council would be elected by the majority of that body as representatives of its views. They would thus naturally tend to form a united party in the Court, and to act and vote in concert. The proposal would thus, in effect, introduce into the Court a preponderance of party representation, which does not now exist, and which would be hurtful to the best interests of the University.

9498. You have not hitherto felt the influences of party feeling?—Not hitherto; but my fear would be, that if you had a party represented by a majority in the University Court, the tendency would be for that party to act together, especially as representing a popular body like the Council.

9499. *Dr. Muir*.—Could you not have a three-cornered constituency?—That might obviate the difficulty. You might have a minority representative, but on the whole I think it would be fairer to divide any increased representation between the Council and the Senate.

9500. *Mr. Campbell*.—Suppose the Council sent three assessors, each member of the Council voting for only two of the three, so that the minority of the Council might have a chance of representation, and that the Senate sent two assessors instead of one, what would you think of a Court of ten?—I do not think that would be an objectionable arrangement. In that case you would not have a compact party in the Court. The third man would represent the minority in the Council,—at least he would be likely to do so.

9501. *The Chairman*.—Irrespective of the necessity for greater representation of some of the elements of academic life, do you say that the Court is too small in number?—I rather think it is too small in number at present. You cannot expect a very good meeting with so small a body, and on the whole I should be inclined to make the number of members of the Court about nine. There are one or two other points in regard to the powers of the General Council on which I would like to make a few remarks. There are other provisions in the proposed Bill which are objectionable. It is proposed to give to the Council the power of meeting at any time on the requisition of thirty members. This would practically throw the whole powers of the Council into the hands of the requisitionists, or those residing in the city and immediate neighbourhood—a very small portion of the membership of the Council. Members at a distance could hardly be expected to travel to the University town on every occasion on which such a requisition might be presented. Then it is very questionable whether there should be given to the General Council by itself such a privilege as is proposed in the following terms:—‘Each General Council may petition the Queen in Council on any matter or matters affecting or tending, in the opinion of such General Council, to affect the well-being and prosperity of the University with which such Council is connected.’ In other words, the Council is to have the power to determine independently of the Court what is best for the University, and independently to petition the Queen in Council, in order to have its views carried into effect. Such a privilege could not but lead to a constant conflict of opinion and jurisdiction, both in the University and before the Privy Council. As a

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general principle, I am opposed to giving independent power of this sort to a body which would not be required to consult either the Senate or the Court, before taking action on the most vital questions affecting the University.

9502. I suppose you would not object to the power which they ask with respect to petitioning Parliament?—I think that might be accorded very readily. If, however, they had this power of going independently to the Queen in Council, it would imply a power of initiating reforms, and this would be assuming a great deal more power than Convocation has in Oxford, because Convocation only has the power of ratifying statutes, but it is the Hebdomadal Council which initiates legislation, and it is the Congregation (not the House of Congregation, but what is called the Congregation of the University of Oxford) which matures legislation. The popular body, Convocation, which corresponds to our General Council, has no such power as the General Council claims.

9503. In short, the power of petitioning the Queen in Council would give them executive power in the administration of the University?—It would do so.

9504. Have you any other remarks on the functions of the General Council?—A power of adjournment from one day to another has also been suggested. I doubt the propriety of this. Its effect would probably be that of throwing the decision of questions into the hands of a limited local party. Those from a distance would likely leave the first day.

9505. *Mr. Campbell.*—Have you ever known an instance where the want of a power of adjournment was felt?—No; I have often known an instance where the want of a power of limitation was felt.

9506. *Sir William Stirling-Maxwell.*—Have you usually attended the meetings of the General Council?—Yes, generally.

9507. Can you give us any idea of the numbers who attend?—They are not large, certainly, but of late the attendance has been better.

9508. How many members have you ever seen in the room at one time?—I have not been present when there were elections going on, at which time there would probably be a large gathering, but at an ordinary meeting I have seen 100 or 150 in the room.

9509. Are there any means of ascertaining the numbers who attend? Are the names marked down as the members go in?—No; I do not think they are marked down in any way except when a vote takes place, and then the division approximates to the number present. I think the attendance is decidedly better now than it was when I went to Glasgow.

9510. No doubt there has been the discussion of subjects of interest relating to the constitution of the Council?—Yes; and a good deal depends on the subject or subjects likely to come up as to whether a meeting is well attended or not.

9511. *The Chairman.*—With regard to the course of study and regulations for graduation in the different faculties, have you any remarks to make?—I wish to take up along with that subject the question as to the expediency of instituting any new faculties or degrees, seeing that those two points are closely connected. As to the course of study in Arts, I am not disposed to make any essential change. I think that any want which may not be met by the Arts system at present would be best remedied by a separate degree or degrees. And even those separate degrees should have a common basis in certain of the subjects of liberal education represented by the Arts curriculum. This basis might form a ground from which various courses of study with appropriate degrees might diverge. The subjects of study in this common basis ought to be

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selected from a regard to their character as disciplinary studies rather than informational,—i.e. studies which are fitted to give free and liberal culture to a man,—to give him such a knowledge and command of his powers as shall best fit him for future professional study or application to special departments. In the common basis a University must be selective,—it must act on experience of what has proved best, or is likely to prove best, for the purpose of liberal education,—and not leave the selection to the choice of the student from the beginning, which would necessarily be made by him in ignorance, or at hap-hazard. This, I think, is a primary function of a University. The demand for the highest education must be created by the supply of it, in the first instance. There is little or no natural demand for it, because there is little or no natural idea of what it means. I should leave the present degree of Master of Arts to be taken by those who choose to do so. It implies a good course of study, and ought not to be broken down. I regard the present arrangements as very good, especially the departmental principle. It has worked very well, and I should be very sorry to see it abolished after only some fifteen years' experience. The system has been assailed, almost entirely from the outside, and by people who have known little of its workings.

9512. *Dr. Muir*.—What do you call the departmental principle?—The principle of having a department of Classics, a department of Mental Philosophy, and a department of Mathematics, putting the classes into groups, with a certificate in each. At the same time I think there is now room and demand for other degrees. I should set these up alongside the present system. I should propose a subordinate degree in Arts, to be called B.A. or L.A. (Licentiate in Arts); also a degree in Science, to be called B.Sc. This has been already instituted in Glasgow and in Edinburgh. The degree of B.L. (Bachelor of Law) is also an important new degree, and is already in existence. A subordinate degree in Arts would be a desirable acquisition for teachers and others, who might not be able to give more than a limited attendance at the University. And I know there is, and has been for some years, especially in the West of Scotland, considerable demand for it. I should not attach the privilege of the franchise to the B.A., reserving this for the higher degree of Master of Arts; and I should not give it except on the condition of at least two years' attendance on University classes, and, of course, the relative examinations. I should ground all these degrees on a common basis, embracing disciplinary subjects and forming a course of liberal education. Already this principle of grounding new degrees on an Arts basis has been well recognised. In the case of the degree of B.Sc. which has been instituted in Glasgow (see Calendar, p. 100), each department of it, viz. Biological, Geological, and Engineering, requires attendance on certain Arts classes, and examination in the subjects; biological requiring any *four* Arts classes, geological any *four*, engineering any *two*. In Law, the degree of LL.B. requires the candidate to be a graduate in Arts (Calendar, p. 117.) And the new degree of B.L. (Bachelor of Law) requires the candidate to be either a graduate in Arts, or to have passed a satisfactory examination in Latin and in any *three* of the following subjects (logic or mathematics being always one of the three), viz.—(a) Greek, with the alternative of French or German, (b) Logic, (c) Moral Philosophy, (d) Mathematics, (e) Natural Philosophy, (f) English Literature. He must have studied, during at least two academical years, two or more of the above branches in a University (p. 118). In Medicine there is, according to the requirements of the Medical Council, a preliminary examination in English, Latin, Arithmetic, Elements of Mathematics, Elements of Mechanics; and pre-

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vions to the first professional examination there is an examination in at least *two* of the following subjects, viz. Greek, French, German, Mathematics, Natural Philosophy, Natural History, Logic (Whately's *Logic*, Books II. and III.), Moral Philosophy. The candidate for M.D. must be an M.A. or have passed in *three* of the subjects now specified, of which one must be Greek, another either logic or moral philosophy, and the third optional. I think the principle of freedom of selection in those cases begins too early, that the choice of alternative subjects is too wide, and apt to lead to hap-hazard selection. And in the case of the preliminary education in medicine, the examination in logic and moral philosophy is utterly superficial and inadequate. The logic, which is simply part of Whately, even if really mastered, is a mere name; the moral philosophy is little better. These subjects cannot be thoroughly studied, or prove a true culture to a man unless he regularly attends a class, and has an opportunity of mastering and digesting them. A mere informational knowledge or *cram* on these points—and the examination tests nothing more—is useless, or worse than useless. To avoid selection at too early a period, and mere getting up of certain University subjects, which should be a true discipline to a man, I would propose a common basis for all degrees,—in Arts, in Science, in Law, in Medicine, and in Theology. The common basis I should suggest (leaving the present M.A. as it is) is as follows:—1. Junior Latin, or preliminary examination; 2. Junior Greek, or preliminary examination; 3. Junior Mathematics, or preliminary examination, or one class in Natural (Observational) Science; 4. Logic and Psychology, embracing the principles of deductive and inductive reasoning, and a study of the mental phenomena generally. This not being a school subject, cannot be made alternative with a preliminary examination. It must be studied in the University in a systematic manner, if it is to be of any real use to the student. As Logic is the subject which I happen to teach, it may be supposed that I give it this preference through predilection or prejudice. This is not so; and I now desire to state briefly my reasons for assigning it this position. I regard Logic (involving Psychology) as essential, because—(1) It is essentially a disciplinary study,—the reflective effort implied being a somewhat arduous and therefore beneficial one, and being at the same time the development of a side of the intellect which observational science does not cultivate. (2) Its principles have the widest practical application of any department of study, being the regulative laws of all thought and reasoning. It bears, in fact, the same relation to thought on any subject that grammar does to speech on any subject. (3) There is no proper substitute or natural alternative for it; for mathematics, while illustrating reasoning, is limited entirely to reasoning in *necessary* matter, and takes no cognisance of that about which our thoughts are most generally occupied, viz. probability, involving the principles of observation, analysis, evidence, and induction. (4) Logic cannot be made alternative with what is nearest to it in some respects, viz. Moral Philosophy, the subject of the latter science being in many essential points different from that of logic, while psychology is the natural introduction to moral philosophy, and should be studied first in order. At the same time I should be very much opposed to putting the study of logic and metaphysics in the first year of the curriculum. This would lead the professor to address a less educated or advanced body of students, and would tend to lower the tone of teaching of the subject which has hitherto prevailed in the Scottish Universities—a result greatly to be deplored. It would not be difficult, however, to arrange for the study being taken generally in the second or third year of the course.

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9518. *The Chairman.*—I cannot see how it could be taken in the second year, if it is to form one of the elements of the basis.—At present, when a student passes a preliminary examination in Latin and Greek, he is counted in his second year, and in that case, if he passed a preliminary examination, which would be equivalent to the junior Latin, or junior Greek, or junior Mathematics, he might then take Logic. Though the first year of his attendance, it is really the second year of his study.

9514. Then he must take logic in company with some of the subjects which are afterwards optional?—Yes; it would be part of the second year's study.

9515. It would be the only compulsory subject after he was allowed to make his option in the different branches?—Yes; it would lie at the root of the curriculum after that. He might take senior Latin, senior Greek, or senior Mathematics along with it. For the subordinate degree in Arts,—L.A. or B.A.,—the subjects would be any two of the following groups, or any four of the following classes:—Senior Latin or senior Greek, English Literature and Moral Philosophy, senior Mathematics and Natural Philosophy; or, in room of this last group, History and Natural Science.

9516. What period of attendance would you require?—I think the degree of B.A. in that case could be taken in two years,—at the end of the second year.

9517. After the basis was laid?—Yes; two years after the basis.

9518. Unless the preliminary examinations were passed, it would be three years?—Yes. If he were to take junior Latin, Greek, and Mathematics, it would be three years. In that case the attendance would come very near that of the M.A.; but the preliminary examination would be a premium upon good secondary education in the country, and an immense advantage when a man came to the University.

9519. You have given the title of L.A. as an alternative for that of B.A. Would there not be an advantage in the L.A., in respect that if you called the degree B.A., it would be very apt to be confounded with the similar degree in the English Universities?—It would.

9520. While it would represent a very different amount of merit?—It would represent in some respects as much study as the B.A. of the English Universities; but I think the L.A. would perhaps be unobjectionable. Licentiate in Arts would, quite well, mark a man off from the M.A.; and, besides, it is an old subordinate degree. There were originally three degrees in the Scotch Universities,—M.A., L.A., and B.A.,—the Licentiate being above the Bachelor.

9521. At what period was that?—For about three hundred years, in Glasgow; from 1450 till the beginning of the last century you find it constantly referred to, and the degree of M.A. was taken in three and a half years, and that of L.A. in three years.

9522. You do not think that the effect of reviving the B.A. degree would be to make men satisfied with that, and prevent them going on to the M.A.?—No, I do not think so. There are so many men in the position of teachers to whom it would be an advantage, that you would have more graduates; but I do not see that it should necessarily affect the number who might ultimately take the M.A.—such, for instance, as those who go on to the Church. I would not attach any privilege to the lower degree.

9523. Either academic or political?—Certainly no political privilege, nor would I be inclined to give it much academic privilege.

9524. You would not allow the holders of it to be members of the General Council?—I would not. For M.A. I would have the remaining

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groups or two classes not taken for the B.A. According to this arrangement, the degree of M.A. might be taken at the end of three sessions; and it is not desirable to make the course of study for it shorter than this period. For M.A. with honours, besides the three classes, as at present, I would substitute a fourth class of subjects, viz. History, Literature, and Political Economy. Thus there would be for M.A. with honours:—1. Classics, as at present; 2. Mathematics and Natural Philosophy, as at present; 3. Mental Philosophy, as at present; 4. History, Literature, and Political Economy.

9525. *Dr. Muir.*—Do you not think that Comparative Philology might be introduced?—I think it should come under classics naturally in the first department; but I do not think you will ever do anything in philology till you get a chair of Comparative Philology. We find it very difficult to get men to come up for honours in any department in which there is not a University class. They do not do it readily when they have to go away and read in books; but when you give the teaching they come up for examination. If philology were included for honours, it ought to go along with classics. Then, for the B.Sc., after the common basis,—and in this case I should probably modify the common basis so as to make English literature an alternative with Greek,—there would be the three alternative courses, as in Glasgow University at present (Calendar, p. 100).

9526. *The Chairman.*—Would you allow a man to go in for the B.Sc. who had no Greek?—Yes; I would insist on Latin, but I would allow an option between Greek and English literature. The three alternative departments for the B.Sc. would be:—A. In Biological Science, any four of these five,—1. Chemistry; 2. Anatomy; 3. Physiology; 4. Zoology (including Comparative Anatomy); 5. Botany. B. In Geological Science—1. Geology; 2. Chemistry; 3. Zoology (including Comparative Anatomy); 4. Natural Philosophy. C. In Engineering Science,—1. Mathematics (one or two); 2. Natural Philosophy (one or two); 3. Inorganic Chemistry (one); 4. Geology (one); 5. Civil Engineering (two). Departments of honours to be instituted in correspondence with those alternative courses. For B.L. (Bachelor of Law),—the common basis, and law classes—Civil Law, Law of Scotland, Conveyancing. (See Calendar, p. 118, where he must be a graduate in Arts, or take certain Arts classes.)

9527. You do not suggest modern languages as an alternative at all?—I do not, as a University subject.

9528. Probably on the ground you have stated, that nothing that is not taught in a University class would be effectively taken up?—Modern languages are very necessary, and I should hope they will be more accessible in the schools of the country than now. I think they are informational rather than disciplinary studies. Then, for M.B. or C.M. (Master in Surgery)—the common basis. At present the examination in the Arts subjects, such as Greek, Logic, or Moral Philosophy, is exceedingly perfunctory,—because the candidates have not as a rule studied the subjects in any regular way in a college class. The advantage of the common basis, I think, would be this, that it would be a fixed element, in which you could have a perfectly definite examination all over the University. There would be one examining body for the whole; and instead of the medical examiners examining their men, and letting them into the University, that body would have control over the entrance of medical students by means of the common basis.

9529. I understand that would involve some attendance in the Faculty of Arts on the part of medical students?—It would, to a certain extent.

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At present a good many medical students do go to the Arts classes, because they are examined in the Faculty of Arts subjects.

9530. On the other hand, do not a great number come up who have not attended any class at all?—That is so. As to honours, I would further recommend that the present number of honour classes (two) be increased. The number is too limited to make the honours examination sufficiently distinctive. The second class being the lowest, makes it appear as if getting it were reaching merely above the ordinary pass. If there were a third class in honours, as in Oxford and Cambridge, the position of the man in the first class would appear more prominent and important; and the student in the rank of the ordinary pass would not feel himself so near the honours man. There are many cases in which I have known a man put into the second class who was very near the first-class men. Now, were there a third class, such a one would get his position in the second, while the inferior men would be put into the third class, and thus you would have a more distinct classification. But at present we have no alternative. If a man is not first he is put into the second class, probably with inferior men; whereas if you had a third class you would be able to avoid that difficulty. It has been suggested that the four Universities of Scotland should unite in examining for and conferring the honour degree. I do not at all agree with this. This would lead simply to the institution of a book-system of examination. It would be impossible to deal with the students of so many different professors (at least in mental and moral philosophy), as if they had come through exactly the same course of teaching, and frame questions accordingly. The candidates for honours on a common system of examination would thus require to be questioned on books existing in the given departments. This would all tend to depress the level of the professorial teaching to what would fit a man for a mere pass, and leave the professor without encouragement to lecture on the higher parts of his subject. Besides, such a system of centralization would tend to obliterate the characteristics of the various Universities. This is a system of examination which is applicable enough to Oxford and Cambridge, where there is teaching from books by tutors or regents from the beginning of a student's career, and all through. But it is not applicable to Universities where the professorial system prevails,—where there is a distinct allotment of the subjects to special chairs, where there is every inducement for each professor to carry on his students as high as he can, and where the teaching is necessarily distinctive. It is this personal element which acts so powerfully in the teaching of the Scottish Universities. And this would be lost, or almost obliterated, under a system of centralization such as is implied in a common examination, whether by books or subjects.

9531. What is your opinion as to the institution of entrance examinations?—I think it right in principle that there should be a line drawn between the point at which the teaching of school subjects (Latin, Greek, and Mathematics) is left off in the schools of the country, and at which it is begun in the Universities. It would be certainly desirable that the Universities should not be obliged to teach the mere elements in those departments. The student before entering the University should have learned as much as his age and maturity permit him to learn. The present difficulty is the extreme disparity of attainments among students who come up to the Universities,—some being considerably advanced, and others far behind. This arises in a great measure from the irregularity in the opportunities of education in the country, and the general want of secondary schools. There are also men who come up at twenty-three and twenty-four years of age, who could not be sent

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back to school, and must get their education somehow. It may be said that if the Universities insisted on some preliminary standard of examination, a supply of higher education would arise in the country. This might be the case to some extent. It would probably lead to Government interference in the matter. On the whole, I am in favour of what I would call a *testing* class-examination for entrants on the regular curriculum in Arts,—i.e. in Latin, Greek, and Mathematics. In other words, unless an entrant came up to a particular elementary standard, he would not be enrolled as a regular student of the class. I should at the same time allow him to join the class, and to have the option of the class or a tutorial class alongside of the regular one,—his *session* to count if he came up to a certain standard—the standard of the senior or advanced class—at the commencement of the next session. There is one important caution, however, to be observed in instituting an entrance examination in school subjects. This ought to apply only to classes of Latin, Greek, and Mathematics. Many students, especially in a large city like Glasgow, avail themselves of *two* or *three* of the Arts classes. They are lads in offices, students of law, teachers, lads going into business; they come many of them for the sake of a liberal education, and thus prove very good students. They wish, say, to take literature, logic, moral philosophy, chemistry. They cannot afford time for more. It would be unfair to such entrants to require them to know Latin, Greek, and Mathematics—to impose upon them an entrance examination as for a student passing through the regular curriculum. Of course, if a lad wishes to go into any of these classes, he must submit to the common examination for the class. But it would be neither fair to the entrant nor good for the interests of the University, to impose upon a man who wished only literature and chemistry, that he should as a preliminary know Latin and Greek. That is a very important point in Glasgow. In my own class this year I have eighty students who are not going through the regular Arts curriculum, and that out of a class of 226. They go through all the work of the class, and they take besides logic some other class.

9532. In many of the Glasgow classes, in my day, there were private students who attended the classes but were not examined?—That exists still, but there are very few of them. I have only two private students, but I have eighty men who take my class along with perhaps chemistry, or literature, or mathematics.

9533. *Dr. Muir.*—Would you require the students who were entering the junior classes of Latin and Greek to pass this examination you speak of, or would you allow them to attend those classes without examination?—I should expect them to pass an examination in Latin and Greek if they wished to enrol themselves as regular students who were going in for a degree. If they failed in the entrance examination I should still allow them to attend the classes, and at the end of the following summer, when they proposed to enter the senior classes, I should have an examination; and if they had made so much progress as would enable them to enter the senior classes, I should count their past session. They would have a chance of redeeming the past session by passing into the senior classes.

9534. *The Chairman.*—It has been suggested to us by many witnesses that the plan should be adopted of having no examination except for the three years' course, and that that should be compulsory on all. I mean, that a young man coming from the country should be allowed to attend the first-year classes without any examination at all, but that he, equally with those who came up to the senior classes at the outset of their University career, should be examined previous to being admitted to

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the senior classes?—I think that the plan I have suggested is on the whole the more workable one. Let the examination take place at the beginning. If the man is fit for them he can pass into the senior classes at once; or if it is merely an entrance examination for the junior classes, he would pass into junior classes.

9535. And if he passed the examination in the junior classes you would not examine him again before he went into the senior?—I would not.

9536. You would not multiply the examinations?—Certainly not.

9537. I suppose you agree that it is not desirable to do so?—I think examinations are rather bugbears to the students, especially to those who come up to the University for the first time. The subjects of the examination should be perfectly definite and well known beforehand.

9538. *Dr. Muir.*—Do you think your plan would tend to raise the standard?—I think it would tend to raise the standard as much as any entrance examination would do.

9539. *The Chairman.*—Have you still the Blackstone examination, by which a man must be examined in Latin before he goes into Greek?—No; that was stopped in consequence of the Act of 1858. The Blackstone is now a prize examination for a medal. It is not at all a test examination. Suppose, however, a man failed in Latin or Greek in his entrance examination, there might be a danger of his trying to get into the later classes, such as Logic or Literature, in which case those classes would be flooded with immature students. I should propose some restriction on that,—say a test examination in English,—but only for those who had failed as I have mentioned.

9540. Do you think that any new professorships or lectureships are required?—I think there should be a chair of History in the Universities. This is an element in which our Scottish education has been seriously defective. I should also suggest a distinct chair of Political Economy. It is so important a science in these days, that it requires a professorship of itself.

9541. And in your scheme you have made provision by which study and attendance on those classes should form part of the alternative?—Yes, and also a department of honours; but till these chairs are instituted it is useless to institute such a department.

9542. *Dr. Muir.*—Do you think History would be attended unless it were made compulsory?—If it were made alternative with some of the subjects for the degrees,—for M.A. and L.A.,—I think the men would attend it. There is not much interest in history in the Scotch Universities, and it needs a good deal to be created by the foundation of a chair.

9543. *The Chairman.*—What is the state of the University of Glasgow, especially in your own department, with regard to the provision of assistance?—In the Faculty of Arts the only classes left without assistance are the English literature, logic, and moral philosophy. For these there is no Government subsidy for an assistant. In Edinburgh, I believe, the Senate has come forward and given a small sum for an assistant, at least in the cases of logic and moral philosophy. In Glasgow these classes have been left wholly unaided by the Senate, although the attendance on logic and moral philosophy in Glasgow is considerably larger than on the corresponding classes in Edinburgh. In logic last year, in Glasgow, the attendance was 190, and this year it is 226,—the largest that has been since the University was founded,—while in Edinburgh it is from 170 to 180. The work in the logic class, apart from the lecture and oral examination hours, consists of written examinations and essays. The papers to be

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gone over by the professor, examined, valued, and classified, will amount this session to, say, 1356 examination papers and 678 essays; in all, 2034 papers. This is in addition to the preliminary examination and examinations in summer reading and summer essays,—all instituted by myself. This is left to the professor to do, besides lecturing twice a day. I may add that I introduced written examinations in the logic class when I went to Glasgow in 1864. There had been none before in any of the classes of mental philosophy. I may add that some eight years ago I instituted an advanced logic class—wholly voluntary—for those students who had a special interest in the study, and were inclined to pursue it into higher departments than could be dealt with in the ordinary class. This, I think, is a proper sphere of work for a professor,—to teach the more advanced parts of his subject, as far as he has opportunity. This class has been as successful as could be expected in point of numbers. I have had as many as twenty-one students in attendance. I beg to hand in a syllabus of one course of lectures. During the last two sessions I have had some help in the work of the class from the Clark scholar in philosophy. According to arrangements connected with the scholarship, he has taught an additional hour in logic on Saturday, and I have had efficient help from him in the examination papers. But you cannot count much on this, for the holder of a scholarship may be so engaged with theological classes and other academical work that he may not be able to give regular assistance. I therefore suggest that some direct provision should be made for an assistant working under the professor, in the cases of logic, literature, and moral philosophy, who will take on him a considerable share of the tutorial work. This would leave the professor comparatively free for the higher work of his chair. The assistant, too, would be useful in the larger classes in drilling those lagging behind, in revising with them the professorial teaching, and in some cases prescribing additional exercises.

9544. And the revision of exercises generally?—Yes.

9545. What kind of salary would you think necessary for such an assistant?—Probably a sum of £50 would be a fair enough salary for the work I would propose. It would just be a higher student doing the work under the professor, and £50 would be a very fair allowance. He might hold a fellowship at the same time, but still he ought to be under the professor, so that the professor should have some sort of control in regard to his work, and if he worked well and amicably with the professor, a great deal could be done in that way.

9546. You think that what you say with regard to your own chair applies also to the Moral Philosophy chair?—I think it applies both to Moral Philosophy and Literature.

9547. *Dr. Muir*.—You spoke about students entering your class without Latin and Greek. Are there many who do so?—They enter without going through the Latin and Greek classes. They may have had Latin and Greek at school.

9548. Are they numerous?—I do not think they are very numerous. I believe that the law students, who in Glasgow form a large element in these classes, take Latin, which is compulsory by the rules of the faculty, so I do not think they are very numerous; but it is done.

9549. *Mr. Campbell*.—Do you know any cases where students begin with you and then go through the course for the M.A. degree afterwards?—Yes, there are cases of that.

9550. *The Chairman*.—And then they go back to Latin and Greek?—Yes; but they are generally advanced students,—teachers who, when they have made a little money, wish to take the full curriculum.

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9551. What is your opinion as to the length of the University sessions?—I do not think any material change desirable, whether the matter be looked at from the point of view of University education or the circumstances of the students. As to the absolute length, this is much the same in England and in Germany as in Scotland. The terms in Oxford are eighteen weeks, and the two semesters in Germany are a little over six months; so that it is very much a question of distribution rather than quantity or length. The question is very much whether the course of study is to be broken up into four terms in the year as in Oxford, or into two as in Germany, or to be retained as it is in Scotland. I regard the continuous course of from five to six months—nearly six months in Glasgow, as it begins early in November—as an exceedingly good arrangement.

9552. Practically it is apt to become shorter?—In my own experience I have many times taught to very near the end of April, losing only 15 students out of 180.

9553. Some of your colleagues say there is a pressure brought upon them to let the men away?—Yes, the Highland students often wish to go away about April; but I have taught on nearly to the beginning of May without losing more than 15 out of 180 or 190, which shows how much the men keep to the class as a whole. I regard that continuous course, I say, as very beneficial as a mental discipline. Its continuity affords time and opportunity for the information and development of the mind of the student. It is not too long for overstrain, but it is long enough. I have observed very remarkable progress made by diligent students in this period; indeed, such a change and development in mental habit as to be influential for a lifetime. I do not think that the same or equally beneficial results would be obtained by a series of three or four shorter terms or sessions in the course of the year. This would be very unfavourable to the systematic and comprehensive way of dealing with a subject which prevails as a rule in the professorial lectures of a Scottish University, particularly in the proper University subjects of teaching, such as Logic, Moral Philosophy, Literature, Natural Philosophy. The five or six months' course allows a full and adequate view of the whole subject to be given. This would be lost by subdivision of the session. At each commencement the student would require to begin anew, and thus to catch up the broken connection with what had been given before. Besides, a good deal of time would necessarily be lost at each commencement. It seems to me that a continuous and uninterrupted course of lectures is very much better as a discipline than briefer terms. Further, the pecuniary circumstances of a great number of the students do not admit of giving up the entire year—and that in a series of years—to University study. They have as a rule no capital fund to begin with, as this arrangement would imply; and it would thus press hard on a large number of excellent and deserving students,—in fact, render a course of study for them impossible. The summer vacation is indispensable in very many cases to the Scottish student, as a means of enabling him to continue at the University. Then the summer vacation is not necessarily wasted, so far as study is concerned. Summer reading and essays are prescribed in most classes. I have myself, since I went to Glasgow, prescribed preliminary reading for those who enter the class for the first time each November, and I have had an increasingly large competition, though it is wholly voluntary. The first examination in the autumn of 1865 brought up thirty students, and during late years I have had as many as fifty.

9554. You announce that examination?—I advertise it at the end of

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the previous session. Then I publish the lists. There is a prize given, and I find it a most important thing that the men should have mastered the elements of logic and mental philosophy before they come up to me. It is wholly voluntary, but all the best students come up to the examination, and I find at the end of the session that the men who come up to that examination are the men who as a rule get the prizes. This is for those who are entering the class for the first time. For those who have passed through the class, higher subjects of reading and essay are prescribed for the summer. Then there is the series of examinations for the degree. These ought to be and are generally prepared for during the summer vacation. It is when thus revising and recasting his work, apart from the pressure of the winter classes, that the student makes perhaps the most permanent progress, because he has most time for reflection, and thus makes the work more thoroughly his own. I think something might be done in this direction for the student during the summer months, especially in Latin, Greek, and Mathematics. Tutorial classes in those departments might be instituted for revising former work and preparing new. I should make these wholly optional. I have seen no evidence of any general demand for a change in the session. Proposals have come from a few people outside the University, who were not familiar with the tendency of its arrangements; and I have known one or two individuals who had idle sons to dispose of in summer, and who thought that the University should open its gates to them. But I do not regard this as either the primary or even the secondary function of a University. The University is better without such youths, both in winter and summer. The only change that seems to me possible, and I am not sure that it is particularly desirable, is that of beginning the session in the middle of October—say the 15th—and going on until the 25th December; then to have a break of say a fortnight, and then to terminate on the 1st of May. But I do not think such a change essential.

9555. Even that would be an additional burden on the finances of the student?—Yes; and I believe the result would be what happened in Edinburgh and Glasgow when the classes opened on the 10th of October, and when professors had to sit waiting till 5th November for the students to come up. Professor Stevenson and Professor Finlayson began on the 10th October, but could not get on with their work till 5th November, and Professor Finlayson used to read Longinus to keep the class going. The same thing was found to be the case in Glasgow. The Scotch session has in fact grown to what it is through the necessities of the people, and it would be very rash to change it. I do not believe a change would lead to any good result.

9556. Do you think that the provision of extra-mural teaching in the Faculty of Arts would be advantageous?—I do not think that extra-mural teaching, as competitive, would be advantageous, but I think there might be subordinate teaching in Latin, Greek, and mathematics, where there is a great deal of drill to be done.

9557. But that would be intra-mural teaching, under the eye of the Professor?—Yes, in that case it would be. I have a few words to say on the general subject of extra-mural teaching. Extra-mural teaching may be either co-ordinate and competitive, or it may be subordinate and preparatory. 1. As to the competitive, the first result of it, if established and successful in the Arts Faculty, would be the breaking up of the present class system, and the substitution for it of small or tutorial classes. This would obviously destroy the *esprit* and the reciprocal influence connected with a large body of students meeting daily together, and the possibility of large competition. This is one of the most bene-

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ficial characteristic features in the Scottish University system. The new arrangement would tend to abolish one principal link of association among the students of the Universities. It would be a most hurtful arrangement in classes where the subject is taught by means of a systematized course of lectures, as in mental philosophy, and where a great deal depends on the inspiring presence and competition of a large class. 2. Practically, once introduced, there would be no limit to the system. Each man, or graduate, might think himself competent to teach. What is to be the test of his competency? Is he to get a licence to teach, simply because he is a graduate? or because he opens a class? Or is one graduate to be invidiously preferred to another? There seems to be no practical means of limiting the number of teachers. Is he to be chosen merely by the pupil himself? or is he to be called upon to write a book, as in Germany? Then why should he reside in a University town at all? Why may there not be on this principle lecturers all over the country who would send up men for graduation? This would be a total destruction of the whole Scottish University system, as an organized, regulated method of teaching. It would, in fact, be a decline from the professoriate to the tutorial or regent system,—the multiplication of coaches for a degree,—a system which the best friends of Oxford and Cambridge have been seeking for some time to remedy. This system is a mere drill system,—barren of original thought in teachers and taught. 3. As was long ago observed by Sir William Hamilton on this point:—‘If a plurality of professors lectured on the same science, there could either no longer be any unity in the examination for the degree, or the subjects of examination must be divorced from the teaching of the academical instructor’ (*Discussions*, p. 807). Obviously, I think, the first alternative is clear, especially as regards intellectual or moral philosophy, or even natural philosophy. One man might be teaching Comtism, another Pantheism, another Hegelianism, and another neither of these. How, then, could there be one examination for the taught? Then the other alternative is necessary,—you would need to prescribe subjects for the degree—probably books—which need not at all be connected with the foregone teaching; and thus the University would become a mere examining body, divorced from its active teaching. We know the results already in such a case. The examination would be a cram on books. The most popular and best attended lecturer would be the man who could give the best kind of informational matter for passing the degree examination. The case of the German Universities is usually quoted as a case in point here. Now, the truth is, there is no such thing in a German University as two men teaching the same subject. The arrangement is this, that at the beginning of the year the Dean of Faculty learns from the ordinary professor and from the *privat-docent* the particular department of the subject which each is going to take up, and arranges that each man lectures on a different part of the subject during the year. This is not competitive lecturing on the same subject.

9558. Is there not another difference, that as the professors receive no fees, they are not put in competition with one another?—I believe that is so.

9559. What is your opinion as to the rules in existence as to the election of University officials?—I have very little to say on that point. I should abolish the private patronage of University chairs.

9560. There is none in Glasgow?—None. I am speaking of my St. Andrews experience. It is too important a matter to leave to one man, probably a stranger to the country and to the whole University system. Moreover, there is no guarantee of his knowledge or competency to make

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the selection. Appointment to a professor's chair is a trust to be confided only to a body of persons of whose competency there is some guarantee.

9561. Have you considered in what way you would abolish that patronage?—I should think an Act of Parliament would do that; I do not know what compensation might be given. I should be inclined to place chairs at present under private patronage in the power of the University Court, or common body of electors for the whole Universities, should such a scheme be approved of. The election of the Rector should, I think, be determined by the absolute vote of the matriculated students, not by vote of plurality of Nations. This gives no guarantee that the person elected has an absolute majority of the students.

9562. *Sir William Stirling-Maxwell*.—To return to the question of professors, there is no private patronage to University chairs in existence except at St. Andrews?—I think not.

9563. So that really the difficulty does not apply to the Universities generally, though it may be considerable where it does exist?—Yes.

9564. And even in St. Andrews there are only three chairs in that position,—Humanity, Chemistry, and Civil and Natural History?—Yes.

9565. *The Chairman*.—Have you any other remarks to make about the election of Rector?—None.

9566. You do not object to its remaining with the students?—No.

9567. I suppose you agree with those who think that the sooner it is got over in the beginning of the session the better?—Yes. At the same time, I do not think it is really any very serious difficulty in the classes. I have never found it affect the discipline of my class, however excited the students may be about the election.

9568. Have you anything to say as regards the emoluments and retiring allowances of professors?—I think the general endowments, and even the whole emoluments of the professors, are below what they ought to be,—especially in the case of the Arts and, as a rule, the Law professors, who have to look to their chairs solely for their incomes. As a rule, they have no other profession, and however well they may do their work, they have almost no prospect of advancement in it. I think the endowments in these cases should be increased. I should certainly not make a professor independent of the fees, because this is always more or less of a stimulus to exertion, and attendance is a good fair test of a man's general efficiency as a teacher. But there is hardly a case in Arts or Law in which additional endowment is not needed.

9569. Have you considered the expediency of increasing the fees?—It was discussed in Glasgow last year. I think, on the whole, it is a fair thing that the fees should be increased, because no doubt wages have very much increased in the country, and a great many who come to the University are sons of the wage-earning class.

9570. I think your *Senatus* came to that opinion?—Yes. At the same time, I am not quite so sure as to what effect it might have on the general attendance at the Universities, or how it might operate; but, on the whole, I am inclined to say that as matter of equity there ought to be an increase.

9571. To what extent do you think the endowments of the professors should be increased?—They vary very much, of course. In St. Andrews you have chairs with less than £400 a year, and in Glasgow there are many chairs certainly under £500.

9572. The whole emoluments?—Yes, endowments and fees. The Natural History chair has lately got an increase by a special legacy; but it was, I think, very considerably under £500 a year. I think that

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from £150 to £200 a year would probably be a very fair average increase. In some cases it would not be necessary to give so much, but I speak of the average, so as to bring the incomes up to about £600. With regard to the present retiring allowance of two-thirds after thirty years' service, I think that is sufficiently limited. It is regulated very much on the principle of the Civil Service; but a man enters the Civil Service very much younger than the age at which a man generally becomes a professor. A professor is hardly ever appointed before he is thirty years of age, and in such a case he is sixty before his retiring allowance of two-thirds comes into play. I think he should be allowed to retire upon that allowance whether he is invalided or not.

9573. Not compelled?—No; because I think a man may be in his prime for a long time after that; but I should allow him, if he chose, to retire at sixty without being invalided, on two-thirds of his income.

9574. It has been suggested to us by one or two witnesses that the office of Principal is not very important?—I must say that I do not agree with that suggestion. I think the office is a very important one in our Universities. There ought to be an official resident head of the University, separate from the professorial body, and I do not think it would be advantageous to put the professors alternately at the head of the body.

9575. Must not many questions arise in which the professors are individually interested, and therefore is it not desirable that the Senate should be presided over by an impartial man who has no personal interest in the matter?—That is so.

9576. Are there not very important matters connected with the financial affairs of the University which it is necessary that the Principal should superintend?—Yes, very important; and I should be inclined to give the Principal more direct charge over the administration of the financial affairs of the University, and make him much more responsible for their management than he is at present. Financial affairs are much more loosely managed by a general body than they are by a single man who has an independent responsibility, and I should be inclined to suggest that the Principal should have some very direct responsibility for the financial affairs of the University. If you are to weight a man with the work of a class, he cannot, in a Scotch University in the winter season, devote any time to the details of business. His whole time is really taken up with his class. I look upon the office of Principal also as a place of reward for learning, and we have so few of these in Scotland that it would be very undesirable to abolish it. It is desirable that the Principal should do some academic work, and an able and learned Principal would, by giving special lectures now and again, do a good work in the University or the University seat; but if you weight him with a professorial class, I do not see how he could do the work incidental to his office or any special work of the kind to which I refer.

9577. Is the mode of appointment to bursaries, scholarships, and other foundations in the University of Glasgow satisfactory?—I think the principle of competition is a good one, and I do not think that nomination by patronage which we have in the case of certain bursaries is very desirable on the whole.

9578. You have some very valuable presentation bursaries?—We have the Dundonald and Hamilton bursaries, which are under private patronage, and there is really very little check on the students who are appointed. We have no power of examination. A man is appointed, and it depends entirely on outside considerations whether he is a good student or not.

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9579. *Sir William Stirling-Maxwell*.—Have you any means of knowing who they are?—They must be in our classes, but we do not know any more about them. The man is nominated at an early period of the session, before we can know whether he is a good student or not.

9580. How do you know officially who they are?—The Duke of Hamilton's commissioner sends an intimation to the Clerk of Senate that so-and-so has been appointed.

9581. We had it in evidence some time ago that frequently the professors did not know who received those bursaries?—There is an intimation, I know, because the Clerk of Senate has frequently asked me whether a particular man nominated is in my class, and I have had to answer the question.

9582. *Mr. Campbell*.—Do you not publish the names in the Calendar?—Yes; they are so published.

9583. *The Chairman*.—Would you say absolutely that there should be no such things as presentation bursaries, even if the presentee were subjected to examination?—No, I would not. I should say that restrictions as to name and locality should be abolished—as a rule, and after a time, at least. I would not, however, make this absolute. The people of a district or county may be more disposed to found bursaries for the youth of their own locality than for the world in general; and if an examination be held of the candidates, or if a power of rejection be given to the University after a nomination, very good students may be got. I would make the power of examination apply to private patronage. If the patron would not consent to make the nomination upon competition, I would ask that the University should have some power of examination, and of seeing that the presentees were qualified.

9584. But you do not hold that poverty should be no element to be taken into consideration in giving a bursary?—That is a very difficult point.

9585. I mean, still subjecting the presentee to examination?—I would not be inclined absolutely to abolish patronage or restriction to locality—certainly not restriction to locality, because that is a stimulus to the foundation of bursaries—but there should be examination by the University after presentation.

9586. If the locality is wide enough the objection very much disappears?—Yes, if the locality is wide enough, so as to have competition.

9587. *The Duke of Buccleuch*.—There are bursaries in the Border counties which would not have been subscribed for if it had been thought they were to be thrown open to the world?—That is so. The system acts very beneficially in stimulating the boys in a district where they know there is a bursary to be gained. One very serious objection to the present bursary system in Glasgow is, that the bursary is given in the first year of a student's course, and entirely for proficiency in classics, generally Latin and elementary English, and perhaps arithmetic. No provision is made for the student who has not had the advantages of a classical training, and who yet in the second or third year of his course may develop remarkable power in logic and moral philosophy, i.e. in the subjects which, though not school subjects, have yet been distinctively taught in the Scottish Universities. There are numerous cases of this; yet the good student of mental philosophy, who before the middle of his course may even have repaired his original deficiency in classics, has no chance of a bursary to help him in his course. His college course may have two or even three years to run. I have known of many cases of hardship of this class. Even when a bursary that has been awarded by competition in Latin at the beginning of the session becomes lapsed or is vacated, it is

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rare that it is given to a good student in mental philosophy. The tendency is to select a man in the classical department, who has not a bursary, or who has not one so good, and to give it to him in preference. To remedy this, certain bursaries should be provided mid-way in the curriculum of the student, which might be available for him on proficiency shown in mental philosophy, say in the course of his logic session, or at the end of it. As a partial remedy, meanwhile, I would suggest that a bursary, which has been held by a student during the first two years of his course, presumably in Latin or Greek, and which then lapses or is vacated, should be given to a student for proficiency in the studies of the following year, viz. mental philosophy. This would secure fairness in the distribution of the bursaries. It is obviously unjust to give a lapsed or vacant bursary in this case a second time to a student in classics. This is to give a double advantage to classics, and probably mathematics, over mental philosophy—to favour one department of University studies at the expense of another. The bursary should be given to a new student, who has not got one, in its natural sequence. Of these there are many every year in the logic class—both poor and meritorious students. As to fellowships, these are given, and ought to be given, after examination.

9588. *The Chairman.*—Have you any of them in Glasgow?—Yes. We have one of about £220—the Clark fellowship, and one of £80—the Scott fellowship. We have four or five altogether. These fellowships are very important, as the Scottish Universities have no fellowships corresponding to those of Oxford or Cambridge; and they are the only rewards for higher studies in the Universities. They ought to be specialized as far as possible, and given for eminence in one or other of the honours departments. The successful scholar is also in some cases beneficially called upon to teach or assist a professor in his work. But this obviously cannot be carried very far, for the holder has often classes to attend, as in law or theology, or perhaps he wishes to go abroad. If, however, you have fellowships of £200, you might call upon the holders to give a short course of lectures in the University—something corresponding to the theological lectures which have been delivered in Edinburgh.

9589. Have you any remarks to make with regard to the financial position of the University?—In Glasgow the debt on the buildings is about £44,000. The interest on this is far beyond what the University has any means of paying. Out of the college funds we gave last year between £700 and £800. But this is merely crippling the college revenues, which ought to be devoted to educational purposes. I doubt even the legality of this application of the college funds. But we have no alternative, except that of ultimate bankruptcy. I may mention that a large portion of this debt (£30,000) consists of money borrowed by the college to give to the Western Infirmary. A certain amount to be given to this institution was originally agreed upon. An increase was made to it in the prospect of larger subscriptions. The total amount subscribed, and more, was wholly used for the University buildings, and through our agreement with the Western Infirmary we were called upon to pay the larger amount promised, and this, of course, had to be borrowed.

9590. But the real origin of the debt was that the expenditure largely exceeded the estimate?—Yes.

9591. And yet the building is not finished?—Yes. That is to say, we came under an obligation to the Western Infirmary, but, as it turned out, more than the amount of the subscriptions went to the College buildings, though these were not finished.

9592. At the same time, the subscriptions were given on the under-

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standing that there was to be an Infirmary?—That is true. It was said on the subscription sheet that part of the money would go to the Western Infirmary, and through that some people would be induced to give to the College. I admit that £24,000 was promised to the Infirmary, and we have given nearly £30,000, which is part of the debt now due by us. But for giving the money in this way to the Infirmary, our debt would have been less by £6000.

9593. You have no assistance from the public funds to maintain the buildings?—We have not, and I think we ought to have some assistance. There is a sum annually voted for that purpose in Edinburgh. At present it is very difficult for the University of Glasgow to keep on its way. We cannot carry out college purposes sufficiently, because we are in debt, and this debt must ultimately lead us to bankruptcy or something like it. The interest on our debt is about £2000 a year, and we contrive to prevent that from swallowing us up altogether by paying £700 out of the college funds, but that is not a proper application of the funds, which are intended for teaching purposes, and the surplus of interest is running up against the University.

9594. And I suppose you find it more difficult to get subscriptions to clear off your debt than to erect buildings?—That is our difficulty now. We find men coming forward offering to finish the tower, but we do not hear anything about paying off the interest on this money.

9595. *Dr. Muir.*—Have you considered the condition of the Theological Faculties in the Scotch Universities, and have you any suggestions to make in regard to their improvement in the way of raising the standard of instruction or liberalizing the tendency of it?—There is one point, which is perhaps a subordinate one, in reference to the B.D. degree. At present the theological professors are the sole examiners for that degree, whereas in Arts there are assistant examiners besides the professors. I think it desirable there should be assistant examiners for the B.D. degree.

9596. *The Chairman.*—As there are in Edinburgh?—I was not aware that was so. Then I think there are certain chairs connected with theology that might be liberalized,—that is, thrown open to members of other Churches than the Established Church,—for instance, the Hebrew chair. I see no reason why the Professor of Hebrew should belong to any particular Church, any more than the Professor of Greek.

9597. *Dr. Muir.*—Or why he should be a churchman at all?—Yes. It is true that the Old Testament is written in Hebrew, but it is also true that the New Testament is written in Greek, and I do not see why in the case of Hebrew there should be a restriction to any particular Church. I think it would also be desirable that we should have something like a public chair of Church History. Most of the controversies lie short of the great facts in church history, and there might be some provision of that kind for making church history also an open chair. As to the teaching of dogmatic theology, so much importance is attached to doctrinal distinctions in Scotland, that a Church would not send its students except to men who held the particular opinions recognised by it. I think, however, that something might be done in the cases of Hebrew and Church History.

9598. But the Professor of Hebrew is expected to teach the exegesis of the Old Testament?—Yes, that is part of his teaching. But I do not see why that should make it anything but a common chair for all the Churches.

Adjourned.

MONDAY, 29th January 1877—(Fifty-Third Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

THE DUKE OF BUCCLEUCH.

SIR WILLIAM STIRLING-MAXWELL, Bart.

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

Professor JOHN GRAY M'KENDRICK, M.D., examined.

Professor
M'Kendrick,
Glasgow.

9599. *The Chairman*.—You are Professor of the Institutes of Medicine in Glasgow University?—Yes.

9600. And were, I believe, appointed recently?—Yes, in October last.

9601. You have been engaged teaching physiology for some time, have you not?—Since the summer of 1869.

9602. Where?—For five years I acted as assistant to Dr. Hughes Bennett, of Edinburgh; after that I was an extra-academical lecturer on Physiology in the extra-academical school of Edinburgh; and then I removed to Glasgow.

9603. I suppose you have seen the appliances of teaching this branch of science in other places?—Yes; I have visited many of the physiological laboratories on the Continent and in this country.

9604. Will you give us your opinion as to what you think is necessary for the satisfactory teaching of physiology, both as regards the professor and the material and apparatus?—I think, in the first place, that physiology is now so extensive a subject as to demand the entire time and attention of the professor; that he cannot possibly have time to devote himself to the actual practice of his profession, because he has a good deal of laboratory work to perform, both in teaching and for experimental purposes.

9605. You are of opinion, then, that a professor of physiology should not be in practice?—Yes.

9606. But should devote his whole time to the duties of his chair?—Yes. The only exception I might make to this is, that he might hold an hospital appointment, where he would have an opportunity of illustrating to his students the views which he taught in his class-room. At one time physiology was taught in this country and elsewhere—but more particularly in this country—mainly by courses of lectures, without almost any demonstration; but in recent years this has been very much changed. The mode of teaching physiology now involves the use of apparatus, of microscopes, of various chemical processes for the purpose of illustrating the lectures to the students; and a professor must be in his laboratory for at least two or three hours a day making arrangements for the lecture of that day or of the following day. That is with regard specially to the teaching of the subject. Then, with regard to original investigation, the methods employed in physiological work are now very intricate, and involve the use of accurate instruments of research—requiring considerable time; so that if a man hopes to do almost anything in advancing the subject, he must have time to work in his laboratory. He must make that the main business of his life, and be prepared to devote the best part of the day to that work.

9607. You mean carrying on independent work of his own?—Quite so.

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9608. Apart from instruction?—Yes. Then, in order to teach physiology efficiently, a properly-equipped laboratory is now an essential. This laboratory must be provided with physiological apparatus, most of which has been invented, I may say, during the past fifteen years. This apparatus is expensive, and yet the most of it cannot be done without.

9609. Will you tell us what are the emoluments of your chair, and what is the provision for it in respect of laboratory and apparatus?—First of all, I have an endowment of £150 per annum.

9610. From what source?—Endowment from Parliamentary grant. The average attendance at the class during the past three years has been 85. This year it amounted to 120; but I propose taking 100 as the average number which I may probably have during the next few years. The fees are three guineas per student, and this will probably amount to £315 for the winter session. I propose, with the consent of the University authorities, instituting a class of practical physiology during the summer session; and supposing that eighty students attend it, and pay three guineas each, that will yield £252. These three sums put together yield a total of £715. From that I have to deduct the following sums:—First, £60 for the services of a laboratory assistant—a mechanic, to aid me in preparing for demonstrations, and to assist me in carrying on experimental work, and in keeping the apparatus in order. I have such a man in my employment, and pay him 30s. a week, but have put it down at £60 a year. Then I have a teaching assistant—a young graduate—who gives part of his time to my service and the rest of it to Professor Allen Thomson. I have undertaken to give him £45. I estimate my laboratory expenses—use of chemicals, tear and wear of instruments, and new instruments—£100; making altogether £210, which, deducted from £715, leaves about £500 to myself. At present I have no grant from the University funds to aid me in paying any of those expenses. The University at present gives me rooms and fire and light; and I have been informed by the Senatus that at present they have no funds at their disposal to assist my chair. I wish also to point out that when I was appointed to the chair, I found very little apparatus in the laboratory, with the exception of some apparatus for chemical purposes which my predecessor had obtained; and if it had not been that I had, in the course of previous years, accumulated a considerable quantity of apparatus for myself, I would have been put to serious inconvenience during the present session, and the students would have suffered in the teaching of the subject.

9611. But you had a considerable quantity of apparatus of your own?—Yes. I intended to mention that to show what is really required to equip a physiological laboratory to the extent I now have it. Since 1869 I have expended about £1000 on physiological apparatus. That is now in the University of Glasgow.

9612. *Dr. Muir.*—Do you consider that the whole ought to be provided by the University?—I think the most of what I have ought to belong to the University.

9613. Is it all of a permanent nature?—Yes; microscopes, appliances for illustrating lectures, and diagrams.

9614. *The Duke of Buccleuch.*—Are all these your private property?—Yes.

9615. And, of course, if you cease to hold the chair these go with you?—They go from the University unless an arrangement were come to.

9616. *The Chairman.*—Suppose the apparatus to be complete, your estimate of the annual cost would be the sum which you have given?—Yes. What I would be prepared to recommend in this matter is this—

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that an annual sum should be allowed for laboratory and class expenses, —defraying the cost of chemicals, repair of tear and wear of apparatus, and purchasing new apparatus, and in making any improvements in the laboratory that might be required in the course of the year. Secondly, that a sum of £100 a year might be allowed for paying an assistant. I also wish to point out this as a matter on which I have bestowed some consideration, namely, that it is quite a fair thing in expending money on apparatus, that the professor should pay a certain share of it himself. He has the use of the apparatus; and the greater the extent of his educational appliances, the more likely he is to attract students, and to increase his emoluments. By having such an arrangement as I here indicate, a certain check would be imposed on what might possibly be an extravagant expenditure. I think, for example, when a new piece of apparatus is purchased, it would be quite reasonable to ask a professor to pay one-fourth of the cost of the apparatus.

9617. *Mr. Campbell.*—And that the apparatus should then belong to the University?—Yes.

9618. *The Chairman.*—The professor would have the use of that apparatus in pursuing his own work and investigations?—Yes.

9619. Which is another reason why he should pay a proportion?—Yes. In regard to the position of my own chair, I have a very satisfactory piece of information to give, brought to light only within the past few days. Dr. Henry Muirhead, of Cambuslang, called on me a week ago, attended one of my lectures, and at the close of it intimated his intention of offering to the University a sum of £2000 to form an endowment for a Muirhead Demonstrator of Physiology in connection with my chair, who would be regarded as my teaching assistant. He has made this intimation to Principal Caird, and I have no doubt he will carry out his intention. That will be a very considerable help.

9620. Will it provide an assistant for you?—Yes; a teaching assistant. But the sort of man who would be of immense service to the teaching assistant and to myself would be a man I would call a laboratory assistant—a sort of mechanic, similar to the man they have in every chemical department of a University, capable of fitting and keeping up apparatus. So that, even although we have this munificent endowment by Dr. Muirhead, I think we may reasonably ask for a certain sum to assist in paying for a laboratory assistant—such a one as I have at present in my employment.

9621. Supposing that provision were made to pay both the teaching assistant and the new technical assistant, and to provide sufficient laboratory apparatus and materials, that would leave your income, as you have estimated it, about £750 clear?—Yes.

9622. Would you be satisfied with that sum as the emoluments of your chair?—I am not prepared to press for any increase of endowment in this respect, unless it is recommended for similar chairs in other Universities.

9623. *Mr. Campbell.*—This gift of Dr. Muirhead's practically reduces your application to one for £160—£100 for laboratory expenses, and £60 for a laboratory assistant?—Yes. I feel quite sure that an allowance for such a man as the laboratory assistant would have the effect of being a saving in the long run. He could take care of the apparatus, and look after it in a way you can't get an ordinary assistant to do without constant supervision. They have such a man in almost every laboratory, physical and chemical, in this country, and in physiological laboratories abroad.

9624. *Dr. Muir.*—Would the work take up his whole time?—Yes.

I regard the position of physiology in our medical curriculum very much as a parallel to natural philosophy in the curriculum of Arts. It requires much the same sort of appliances—the same kind of apparatus—and the same amount of time to be devoted to it.

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9625. *The Chairman*.—Is that all you have to say with regard to your own chair?—There is one little matter which I think it proper to bring under your notice. In the case of laboratories having large collections—extensive apparatus—part of which may belong to the professor and part to the University—catalogues ought to be kept, and if possible a duplicate catalogue; and not only that, but the apparatus should be looked over every six months, and the catalogue should be certified as correct. I have noticed difficulties with reference to that matter.

9626. You have something to say, have you not, on the subject of the medical curriculum and examinations?—Yes. I may mention that during the time I have been teaching in Edinburgh, I have had great opportunities of knowing medical students. I have had opportunities of watching their studies, as a good many have resided from time to time in my house under my supervision; and I have observed the bad effects resulting from the present arrangements in regard to first professional examinations on botany, natural history, and chemistry. These subjects are usually passed by students at the end of the second year of study—that is to say, at the end of the second winter session. They attend anatomy and chemistry usually the first winter session; natural history, botany, and practical chemistry the first summer session; and anatomy and physiology the second winter session. Almost invariably during the second winter session, at the time they ought to be devoting their attention to physiology and anatomy in particular, they are busily employed studying botany, natural history, and chemistry. The fact was, that many students really came to the Professor of Physiology simply as a matter of form, attending his class and not working his class as they ought to do. At all events, many did so, and do so; they take it as a matter of form, while their whole attention is occupied in preparing for the first professional examination on scientific subjects. Of course, they may avoid this in some degree by commencing their medical studies at the beginning of the summer session. In that case they are allowed to appear for the first professional examination in the month of October following. They may do better in that case, but the great majority of students commence at the beginning of the winter session only, and get into the difficulty I have mentioned. What I would recommend there is that some arrangement should be made to ensure that they pass this first professional examination, say in the month of October, before they begin the second winter session, so that they may have those scientific subjects off their minds, and be prepared to devote their attention to anatomy and physiology, subjects which are at the very basis of their future medical studies. I have thought of one method of attaining this object, which is as follows. I think I am correct in saying that at present three-fourths, or at all events one-half, of those attending chemistry, botany, and natural history pay little attention to the lectures during the time they are attending. A comparatively small number enter for the class examinations, and they think of preparing afterwards for the first professional examination. Now, one way of encouraging them to study at that time would be to require them to attend the ordinary class examinations on these subjects.

9627. Are they not required to do that at present?—No. Then a certain percentage of marks obtained in these examinations should exempt

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them from any further written examination; and lastly, at the end of the session there should be an oral examination on that subject by the professor with the aid of his assistant examiner. If this were done almost every man in the class would be busily studying the subject at the time of attending the class. He would also have the other advantage of having it off his mind at the end of the first year of study. So that he would have to devote his first year of study to scientific education, and be prepared to devote the remaining three years to the more strictly professional studies.

9628. *Dr. Muir.*—But might that not be arranged by the Medical Faculty itself without any special enactment on the part of the Commission?—Yes; but there are various opinions held by members of the Medical Faculty about it. Some still adhere to the system of having the subjects grouped in different classes; and many of them think that students should attend a second course of chemistry during the second winter session.

9629. *The Chairman.*—What would you say to transferring these three chairs, or the subjects of botany, natural history, and chemistry, to the Faculty of Arts, so as to dissociate them from the proper medical curriculum?—I think it would be a very good arrangement. It might be regarded as a Faculty of Science or a Faculty of Arts.

9630. And if medical students, before entering on their proper course of medical study, were required to attend these classes, they might probably be induced to attend other classes in the Faculty of Arts?—Yes; I would quite approve of that arrangement. I think it very likely that in future some such arrangement will practically be followed, because many Arts students attend many of these classes—at all events students who intend to take degrees in Science; and in my class of physiology there are a good many Arts students and Divinity students, so that a broader basis is being provided for these subjects in that way, and they may have a better future in store for them than if they were merely medical subjects.

9631. *Mr. Campbell.*—Does the practice you have alluded and objected to prevail in other Universities?—Precisely the same arrangement. In the Universities of Glasgow and Aberdeen, students are examined in natural history at the end of the *third* year, instead of the second—a still worse arrangement than what prevails in Edinburgh, from my point of view. I have noticed it very often, and been vexed about it. If a student does not work when attending the class, it is impossible that he can do otherwise than work before the examination; and he has sometimes to study botany during the winter session, the worst season of the year for getting practical knowledge of that subject.

9632. *The Chairman.*—The great object of your suggestion is to secure that a student shall study those subjects while formally attending the classes, and not at any other time?—Yes.

9633. And then when he has got through these subjects to have done with them?—Yes.

9634. And devote his attention entirely to professional subjects?—Yes. At present that is really not done by a large number.

9635. Is there any other subject you wish to speak upon?—There is no other I wish to bring under your notice.

Rev. THOMAS SMITH, D.D., examined.

9636. *The Chairman.*—Where is your charge?—I am minister of Cowgatehead Free Church, Edinburgh.

9637. You were educated at the University of Edinburgh, were you not?—Yes.

9638. Did you take a degree?—I was, I believe, the last of the honorary Masters of Arts. Nobody took degrees in my time. I had a good deal of correspondence with Principal Forbes about scientific subjects, and he proposed that I should get the honorary degree. I am also Doctor of Divinity of the University.

9639. You have turned your attention a good deal to the subject of University education?—Yes.

9640. And particularly to such education in connection with graduation in the Faculties of Arts and Divinity?—Yes.

9641. Are you in favour of the institution of an entrance examination?—Yes. I am very strongly in favour of it.

9642. Upon what conditions would you introduce it?—That is not quite for me to say. I certainly think it ought to be made absolutely compulsory upon all entrants; but it could not be made altogether so at once. I would let it be known at once that it should be after a very short time compulsory on all to reach a certain standard before being admitted to any class at all in the University.

9643. Then would you make the passing the entrance examination the absolute condition of being allowed to attend any class?—Yes, any class in the Arts Faculty. I know nothing about the Medical or Law Faculties.

9644. Would you make that examination compulsory even where students did not intend to proceed to graduation, but only wanted to attend for a year or two?—Yes, because my great objection to the present system—the want of any examination—is that the standard is kept down for the sake of those who enter below a proper standard. I don't care what their object is ultimately; they are in the class, and the teaching is accommodated to their wants.

9645. Can you give us any information of the standard up to which you would require students to come for passing that examination?—That is scarcely in my department. I should say the student should be able to read and translate an ordinary Latin author; and, as Greek is taught in our schools, perhaps it would require to be a very simple author in Greek. Certainly he ought to be able to pass an examination in Livy, and upon the *Anabasis* of Xenophon. Then I would have them up to a certain standard in mathematics; they ought to know a little geometry; and they ought to be good arithmeticians, which many of them are not.

9646. Then you think the subjects of examination should be Latin, Greek, and mathematics?—Yes; and certainly it would be desirable that they should know English history, and be able to write English correctly and fluently. In short, any subjects that would bear on the teaching of the students, and make it possible for all who enter to be able to receive such teaching as we all have instinctively a feeling that Universities ought to give, would be what I would require.

9647. There are at present a number of students who come to the University of rather an advanced age as compared with others. Would you make any difference in regard to them?—Ultimately, I certainly would not. Perhaps, in the transition state, it may be necessary that it should not be so; but I don't think the loss such students would sustain

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would be very great. We were told in the Council that they can bring themselves up, from their superior desire to learn, before the close of the session. It would not be a great loss for them to be kept back half a year or so. It would involve a year's delay as the session at present stands. If a man is twenty-eight years of age, it would not make much difference to him although he were twenty-nine; and the delay to such as are fourteen, fifteen, sixteen, and seventeen years of age would be of still less consequence.

9648. Would you make such a student prepare himself by private study?—Well, that involves the question of secondary education throughout the country. There are not means at present in all parts of the country for students getting themselves up in the necessary subjects; but if the Universities of Scotland would make that their demand (you know the people of Scotland as well as I do), the people would very soon find the means for complying with it in some way or other.

9649. *Sir William Stirling-Maxwell*.—But you would not expect a man of twenty-eight years of age to go to a secondary school, would you?—There would be ways of studying in the evenings, or in some other way. The student might get private help. I myself have helped many a lad in Edinburgh; and ministers throughout the country are continually helping men of that kind. If they have a desire to learn, as things are now, they can manage it all right; and certainly they would do it quite as readily, if not much more so, if it were made an absolute necessity.

9650. *The Chairman*.—I suppose you contemplate that the examination at entrance shall not be a severe one at first, but shall become more stringent afterwards?—I should think, perhaps, that it would be better not to introduce it for two or three years, but to intimate now, that at the end of that time it would be introduced and begun in all its stringency. It would not be desirable to have an examination that was not an examination. I would have a real one, or none at all. However, that is a matter of detail, which I don't think it would be difficult to arrange.

9651. Have you any views to suggest with regard to the present curriculum of study for degrees in Arts?—I have always been an advocate of the *status quo*. I am of pretty strong conservative leanings, and don't much like to alter the course, or to popularize it more than it is at present. We ought to keep up the standard. I would raise it very much in respect of Latin and Greek. That is the main defect, I think. I have often seen the examination papers in Latin and Greek, and they are good, and all that they should be; but I am told that it is notorious that the numbers attached to the questions are so arranged that a man may pass for a degree who has scarcely seen the Greek play, which is always a part of the subjects prescribed; that he can get so many marks for the easier questions that he is independent of the higher subjects altogether. Of course, this is a matter for the examiners to arrange; and I think they are driven to this course by the fact that a large proportion of the students are not up to the mark. I do not know anything of this of my own knowledge, but I know that this belief is prevalent among the students.

9652. *Dr. Muir*.—Do you mean that there is a variety in the questions, —some being of greater and some of lesser difficulty?—Of course, and that ought to be so; but I am told the numbers are so proportioned that it is quite easy to get up to the proper number by taking only the very easiest questions. I know that is a common opinion amongst the students going up.

9653. *The Chairman*.—Would you have a three or four years' curricu-

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lum in the Arts before the taking of a degree; and would you devote two of the four to attendance on Latin and Greek?—As the sessions are now, I should like the four years to be continued; but then, I think there ought to be much longer sessions.

9654. To what extent would you lengthen the sessions?—There have been all kinds of proposals made. My idea is, that there should be three terms of three months each, and that two of these should count as of the same value as the present five months' session—I mean the same value academically in respect of degrees.

9655. Do you think that would enable the student to get through his curriculum in a shorter time?—In three years, with nine of these terms, the course, I think, might be very well got through.

9656. But a well-educated student, who comes up now, can take his degree in three years, can he not?—Yes. I had a son who passed for the three years' course very easily; but I saw that the course could not be arranged to do justice to the subjects—I mean to take them in three years, as the sessions are. I don't think the three years' course is at present desirable except in exceptional cases.

9657. Do you mean that there is not a sufficient amount of instruction given in the three years?—Either that, or it will overtax the young man's strength to follow that instruction or take it in.

9658. Your lengthening of the session would not enable the student to take his degree in less than three years?—No. As things are now, here is what happens: Two boys are together in the fourth class of the High School; one goes two years to the Rector's class, and the other to the College, who, I suppose, might pass even a three years' course. We shall suppose he does not. The other boy who has remained at the High School, after twenty months' teaching and real work, comes up and enters a class which is designed for those who have left the fourth class when he left the sixth, and the teaching must be kept down to their standard. I know that such things happen constantly. The advanced boy gets little or no benefit from the two years' attendance on the Latin and Greek classes in the college, and practically goes over the same ground as he has gone over in the High School.

9659. Has he to do that in the senior Greek and Latin? Suppose a boy comes from the Rector's class to College and enters the senior Latin and Greek classes, does he not get any higher instruction than he has already received?—Of course, he gets the good of the lectures on classical subjects; but I think the reading of Latin and Greek authors would be pretty much on the same level.

9660. You think the reading of Latin and Greek would not be higher than in the Rector's class in the High School?—No.

9661. *Dr. Muir.*—And, according to your conception of the University, it ought to be a great deal higher?—A great deal.

9662. *The Chairman.*—Have you formed any idea of what standard you would desire to see attained in the Latin and Greek classes in the second year—what authors the students ought to be able to read?—I am not a great classic scholar myself, and I should not like to say that. I have often examined, for our Free Church, students after they have gone through the course, and I know we have a considerable number of men—not a very large number, but still a considerable number—regarding whom we may safely predict that they will never in their lives be able to get any benefit from reading a Latin book. They may manage to get through the examination in translating; but you can perceive, as a matter of fact, that they cannot take up Calvin or Luther, or any Latin writer, and get benefit from his writings.

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9663. Is that from deficient education or deficient capacity?—There may be cases of deficient capacity; but I think it arises, in almost every case, from deficient preparation and want of early opportunities. I admit, that if a young man enters the college with even a fair education, he will get his faculties exercised to a certain extent, and he will, at all events, not retrograde; but the men who have no preliminary training never go forward, and can't go forward.

9664. Have you turned your attention to the subject of graduation in Divinity, and the existing arrangements in that department?—Yes. I introduced the subject in the University Council as to the opening up of the degree to other than University students. Of course I have thought a good deal on that subject. The Council recommended it, and the Senatus opposed it for a time; but eventually the Faculty of Divinity consented, and it was agreed to. Upon the whole it has wrought well; but still I don't think it is at all perfect. It seems to me that one defect is this: I urged on the late Professor Crawford, privately, that they should make the examiners *graduates* in theology; but, instead of that, they made *Bachelors* of Divinity the examiners. My object was that some Free Church Professors should be made examiners alongside the University Professors. That has not been done; and the examiners are the University Professors and bachelors who have been University students within a few years, until within two days ago, when I see a step has been taken in the right direction, in the appointment of a Free Church student to an examinership. The result of that has been that it has come to be understood that, in regard to one of the professors, it is simply an impossibility, or pretty nearly an impossibility, for a man to pass the examination with much credit unless he has attended the class of that professor. And that I can very well understand. It is the chair of Biblical Criticism I refer to. With theology and Hebrew there is no danger of that, because these are old-established subjects; but biblical criticism is in its infancy, and the views taken of it, and the knowledge obtained of it, will vary very much with the man under whom the student has pursued his studies. Then, it being the fact that the examination was practically in the hands of the professors on their own subjects, I know our Free Church students have taken the idea that it is in vain for them to go up; and although they went in very earnestly at first, and a large number of them passed, the feeling now is that it is putting them at a disadvantage to go up at all, simply with reference to that one paper. And I do not for a moment blame the professor. If I were teaching such a subject, I would examine in accordance with the views I had given in my class; but if some of our professors were alongside, the difficulty would be obviated, and it would be fair to all.

9665. You think that a Professor of Biblical Criticism outside the University should examine along with the professor inside?—Yes. An intimate young friend of mine was appointed to one of the examinerships the other day. That is so far well; but still he will have little weight in comparison with the professor alongside of whom he will work.

9666. *Dr. Muir*.—Has it been proposed to the Senatus to appoint a professor of the Free Church?—I am not aware. I spoke to Professor Crawford about it frequently, and he was against it.

9667. *Mr. Campbell*.—Who appointed the examiners?—The Court. The professors are examiners *ex officio*, but the additional examiners are appointed by the Court.

9668. *The Chairman*.—Is there anything else in regard to graduation in Divinity you have to suggest?—No; with the exception I have men-

tioned, it has wrought satisfactorily. There is perfect confidence on the part of our students that there will be no unfairness, and no desire to put them in the background; the disadvantage arises from that almost necessary circumstance that a man examines according as he teaches, and from the fact that it is either the teacher or his own students who have been examiners.

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9669. And that difficulty you say arises particularly in regard to Biblical Criticism?—So far it does. I have not heard it spoken of in regard to the others, and I can see that it would be likely to arise only in that.

9670. Is there any other subject on which you would like to give evidence?—In regard to the lengthening of the sessions, I have not pressed a strong view. It seems to me, however, that we shall never be in a position to compete with other Universities as long as we have only five months' teaching out of twelve. I remember Professor Blackie stating at one time in the Council that it was the worst of all possible ways to learn Greek for five months and forget it for seven. That is an accurate statement of the history of some of our students. Of course, some carry on their studies in the summer.

9671. *Dr. Muir.*—Would you have the professors to teach all the three sessions?—Yes. At least, I would have the teaching arranged so that there should be such teaching as would be recognised as equivalent to professorial teaching. I know the professors say it would be too great a tax upon them. Their income, however, would be increased. But, after all, the work would not be so very prolonged. Suppose there was October, November, December, stopping before Christmas; after the Christmas holidays, January, February, and March; stop the first week in April; and then from the middle of April to the end of June. There would then be July, August, and September, which is a sufficiently long holiday.

9672. *The Chairman.*—Of what length would you propose the two intermediate vacations at Christmas and in spring?—Ten days or a fortnight, taking them off the sessions, which would thus be a week or so less than three months each. I don't think the sessions are much, if any, above five months long now. I think they last about eighteen weeks.

9673. *Sir William Stirling-Maxwell.*—Do you not see any inconvenience to poor students paying a third more of fees every year than they pay now, and also having to reside so much longer in Edinburgh?—No, because I would not require them to be very much longer in the city. I would make two of these sessions count for one of the present; that would be not more than six months to the present five. Then I don't think it would be fair to make the professors take only half of the present fee for one of these sessions; but I would not have the fee of each term equal to the present fee for the five months.

9674. But the professors, if they taught for a longer period, would have larger pay?—Yes; they would have a larger fee for three sessions than now for one session. Still, the individual student would not have to pay much more.

9675. Still, if the professors receive considerably more, I cannot see how the students can fail to pay more?—I think the number of students would be increased.

9676. But in some cases might not some not come up, and say, 'We cannot give up all the summer'?—It could easily be arranged, I think, that they need not go on continuously, but take only two terms in any one year, if they wished it. They might take, say, six months *minus* two

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weeks, instead of five months as at present. In that way they would be no worse than they are.

9677. You think that instead of a large number of lads finding the long vacations an advantage, a still larger number are deterred from coming up by the too great length of the vacations?—That depends on the social standing of the students a good deal. I have no doubt that a smaller number of men would go to Oxford and Cambridge if we had the year occupied, and I should regard that as an advantage. I wish to keep our men to Scotland. The higher class would attend better. There would be some difficulty in sacrificing the time, on the part of those who are employed as teachers or otherwise; but still it would only necessarily involve a month or so more in the year.

9678. *Dr. Muir.*—Have you any suggestions to make in regard to the Faculty of Theology, or the improvement of that faculty in any way?—No. I suppose it is much too weakly manned. In our Free Church College we have about double the number of professors, and we don't find them too many.

9679. *The Chairman.*—How many theological colleges are there in the Free Church?—Three—Edinburgh, Glasgow, and Aberdeen; but the Aberdeen one is not equal in strength to the others.

9680. How many professors have you in Edinburgh?—Six, besides Dr. Duff, who lectures half the session in Edinburgh, and the other half in Glasgow and Aberdeen.

9681. How many in Glasgow?—Four theological professors, and a lecturer on natural science from the theological view. So far as I understand it, the natural science lecturer conducts his class very much as one of natural theology, which has always been a part of the theological course. Professor Duns does the same here.

9682. In Aberdeen how many are there?—Four also, with no lecturer in natural science, because natural history is part of the undergraduate course in the University there.

9683. *Dr. Muir.*—Some gentlemen have proposed that the chairs of Theology in the University should be thrown open to all the Presbyterian Churches of Scotland; what do you say?—I am a Free Churchman, and would not like to say anything as if I were wishing to bring fish to my own net. I think arrangements might be made by which many branches of theology might be very well taught in common; there are not so great differences between us in regard to these.

9684. But that must be done by combining the forces, must it not?—If that could be done, it would make a grand college; but as an ecclesiastic, I may say I see little prospect of that being done.

9685. *Mr. Campbell.*—What subjects are taught in your Theological Hall not embraced in the University curriculum?—Professedly none. There is this difference, however, that we have one professor who gives two hours each day to theology alone, and another has natural theology, and another apologetics; whereas the Professor of Theology in the University has all these to himself with only two hours a day.

9686. *The Chairman.*—You think the chair of Theology is too heavily loaded?—Yes. Dr. Chalmers always felt that, and every one must feel it. And not only is it heavily loaded, but it is also exceedingly inconvenient for the students. In my time, we attended Dr. Chalmers' first class one year, and his second class three years. It so happened with me that I began at the beginning and went straight on to the end of his course; but the man who came a year later than I would have to begin in the middle of the course, and then take the course in this order—second, third, and first; and the men of the next year would take it in

the order, third, first, and second. That was extremely inconvenient, and altogether a thing which nothing but dire necessity could have reconciled men to.

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9687. *Dr. Muir.*—The proper order of the subjects being inverted?—Yes.

9688. *The Chairman.*—But only as regards a certain number of the students?—Yes; as regards two-thirds of them.

JAMES BLAIKIE, M.A., examined.

9689. *The Chairman.*—You are one of Her Majesty's Inspectors of Schools in Scotland?—I am.

James Blaikie,
M.A.,
Inspector of
Schools.

9690. You were appointed recently, were you not?—Yes.

9691. You were formerly one of the Masters of Fettes College?—Yes; I was for six years mathematical master there.

9692. You have also been an examiner in the University of Edinburgh, have you not?—Yes.

9693. Are you still so?—Yes. I am, in fact, the senior acting examiner. At present, Mr. Adamson is senior to me, but he has been appointed Professor in Owens College, and he could hardly appear here, when I was asked to mention some points to you bearing on the position of examiners.

9694. You are an examiner in the Faculty of Arts?—Yes.

9695. And as such you had the duty of examining for the degree in Arts?—Yes.

9696. And also of examining medical students in the preliminary examination?—We are required to do so.

9697. Is there any other examination you conduct?—There are examinations for Science degrees; but those take part of other examinations, so to speak. The candidate for a Science degree has to pass a preliminary science examination. That is the same examination as the preliminary medical. He has again to pass a higher examination, which is, to a certain extent, the same examination as the M.A. He gets our papers and uses our papers, and we are sometimes asked to examine his answers. Sometimes we are not asked; our position with regard to that is undefined.

9698. Then, as regards the examination for the degree in Arts, are you satisfied with the existing arrangements?—I think the existing arrangements are very good, so far as our position is concerned.

9699. The board of examiners consists of certain professors and certain outside examiners?—Yes.

9700. How many of each?—There are three outside examiners and the Professors of Humanity, Greek, Mathematics, Natural Philosophy, Logic, Moral Philosophy, Rhetoric and English Literature—three examiners and seven professors.

9701. Do you think the proportion of non-professorial examiners is sufficient?—Quite; in this way, that as at present arranged the non-professorial examiners have an equal voice with the professors in determining any point. I am connected with two professors—Professor Kelland and Professor Tait; in the mathematical examination with the former, and in natural philosophy with the latter. As far as the work goes, one man is quite sufficient to overtake it.

9702. From the mode in which the system is worked, you have equal weight with the professors in determining on the merits of the candidates?—Yes.

James Blackie,
M.A.,
Inspector of
Schools.

9703. *Dr. Muir.*—You have an equal voice with each?—Yes. The way we work is that we practically decide matters, and the professors revise our decisions when necessary.

9704. *The Chairman.*—Then with regard to your examination of medical students, do you think that is a satisfactory arrangement?—Not altogether. The difficulty about it seems to be that hardly any man appointed an examiner has, when he is appointed, the least idea that he will be required to examine students in so many subjects. We understood before applying that we were to be appointed examiners in Arts, and our testimonials are drawn out with a view to our qualifications for such examinations; whereas the examination for the Medical degree requires different qualifications, and sometimes men who have undertaken to be examiners in Arts, on the strength of their classical acquirements, find that they are required, without previous knowledge, to examine in French, German, and other matters, which they may not have studied.

9705. There are a number of alternatives in the preliminary medical examinations, are there not?—Yes, a large number; about a dozen.

9706. Embracing French and German, among others?—Yes. Thus the work, as a matter of fact, for the preliminary medical examinations, is much more severe than the work for the Master of Arts examinations.

9707. Harder, you mean, for the examiners?—Yes; there is a greater number of candidates, but the work is of a lower character.

9708. The standard of qualification being much lower?—Very much lower.

9709. Have you any suggestion to make for the improvement of that part of the system? Would you have different examiners for that preliminary medical examination, or how would you arrange it?—I have hardly considered how it might be improved. The chief difficulty in my mind is, that as long as the present arrangement continues, there will be a difficulty in getting men of any eminence to undertake the position of examiners in Arts. Men have frequently undertaken that position under the belief that they will only have to examine in the one subject; and after finding out their mistake, they don't care to throw up their engagement. There is no special remuneration for those different subjects. I don't, however, mean to say that the remuneration is not quite ample, taking the whole circumstances into consideration. From the point of view of the welfare of the University, I think it would be well to separate those subjects.

9710. You think the University would get better men to undertake the examination for the Arts degree if they were not compelled to undertake the lower examinations also?—Exactly.

9711. *Dr. Muir.*—There ought to be no difficulty, I suppose, in getting separate examiners?—No. French, German, English, and arithmetic come into those lower examinations. They are entirely preliminary subjects of school education. The examination takes up so much time that if I had remained at Fettes College I could not have continued to hold the position of examiner in Arts.

9712. What number of candidates may you have had in that preliminary medical examination in the course of a year?—In a general way, I can say that I had to examine between 300 and 500 papers twice a year.

9713. But each paper did not represent a separate student?—No, because each student has to take up at least three of the five subjects in which I am examiner.

9714. In regard to the examination of candidates in Science, do they require to undergo a preliminary examination similar to that in the

Faculty of Medicine?—Yes; except when they have obtained certain qualifications, such as the M.A. degree, which exempts them. James Blaikie,
M.A.,
Inspector of
Schools.

9715. Is that preliminary examination similar to the one you have just spoken of?—Yes; they receive the same examination papers. The subjects are certain subjects of the twelve—not the whole of the twelve.

9716. Then how do you examine?—We examine the papers. We receive a list which has first the names of candidates in Medicine, and then those in Science; and we examine their papers and hand them over.

9717. But although you examine the papers you don't decide on the results of the examination?—As far as that examination goes we do decide it.

9718. You mean the Science students?—Yes. We put a mark on the paper which denotes that they are above or below a certain standard.

9719. Do you decide on the results in the Medical department also?—Yes.

9720. *Dr. Muir.*—But can a professor override your judgment?—The way in which it is managed is this: The three examiners meet along with Professors Balfour and Crum Brown, joint conveners of the Committee for Science Degrees. We report *vivâ voce* from the papers before us whether each student has passed or not; and, I believe, our decision is taken as final. If there is any wish that it should be changed, it is mentioned at the time, and the examiners may revise the papers. But the decision of the examiner is never overridden in any other way than a suggestion that there may have been a mistake.

9721. *The Chairman.*—Then practically your decision is final?—Yes, as far as the preliminary examination goes.

9722. Is there any other examination you conduct connected with Science students?—There is a further examination, which is called the Bachelor of Science examination, in which the students are required to pass in mathematics and natural philosophy. In this subject they get the same papers as the candidates for the degree of M.A., and the two examinations are held on the same day.

9723. The examinations in these two subjects?—Yes. Sometimes I have taken away those papers and have marked them, and at other times the professors have done so; but the opinion of the professors seems to be that in regard to that examination they decide.

9724. Are the papers which you have prepared for the candidates for the M.A. degree used in that examination?—Yes; and, as a matter of fact, I have occasionally revised them, and marked on the candidates' papers the percentage of marks. I have no voice in the decision in these cases. The papers are handed over to the committee.

9725. *Dr. Muir.*—Is your decision final in regard to the candidates for the M.A. degree?—Our decision, after consultation with the professors, is final.

9726. But in case of difference of opinion, how do you manage?—I have never found any difficulty in working with the professors. They have suggested to me that I was either marking too high or too low, and on going over the papers we discussed the different points; and in my own subject—mathematics—when you come to the final detail, there never is any difficulty. There may have been an omission at first sight. If there is any difficulty, we come to a unanimous decision after revision. Any mistake generally occurs from oversight.

9727. *The Chairman.*—In casting up the results?—Probably in estimating the amount of imperfection of an imperfect answer.

9728. The remuneration you receive as examiner is given for the examination of candidates for the M.A. degree?—So I understand.

James Baikie,
M.A.,
Inspector of
Schools.

9729. And there is no special remuneration given for these other examinations?—No.

9730. Is there any other subject on which you desire to give evidence?
—None on which I care to volunteer evidence.

Adjourned.

FRIDAY, 2d February 1877—(Fifty-Fourth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

THE DUKE OF BUCCLEUCH.

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

WILLIAM F. OGG, Esq., examined.

W. F. Ogg,
Esq.,
Advocate,
Aberdeen.

9731. *The Chairman.*—You are an advocate in Aberdeen?—I am.

9732. And a member of the General Council of the University of Aberdeen, are you not?—Yes.

9733. Are you a graduate of that University?—No. I was only three years at the University in the Arts classes. I came here on the nomination of the General Council.

9734. To represent their views?—Yes.

9735. You have taken a good deal of interest in the proceedings of the Council, have you not?—Yes, since the passing of the Act of 1858. I am a member of the committee on the Constitution of the University, and of a committee which communicates with committees of all the Universities on University affairs, and which meet periodically in Edinburgh.

9736. We shall be glad to hear your views on the constitution and powers of the University Court and General Council?—I think that the constitution as established by the Act—with a Chancellor, a Rector, a Court, and a Council, under the Queen in Council—is universally approved of. There are some differences of opinion in matters of detail. We think the Chancellor ought not to have a veto, as that might be in some cases dangerous. We also think that the Chancellor ought to be elected not for life, but for eight years. I do not care much about that point personally; but the majority held that view, because they thought that if a Chancellor were elected who turned out to take no interest in its affairs, it would be a very disastrous thing for the University. He would be eligible for re-election at the end of eight years.

9737. Are not these the points on which a report was made?—Yes.

9738. We have got that, and it will be unnecessary for you to go over the points embraced in that report. You may assume that we are in possession of all the reports and resolutions?—The only other matter on which I have come to speak particularly is that of higher education. I made a motion at the last meeting of our Council with the view of having it considered whether the utility of the University might not be extended so as to be in some degree a substitute for secondary or higher education. The idea was universally approved of, and a committee appointed to consider the subject. That committee met on the 4th of November 1876, and in the following minute they embodied generally their views:—‘At

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a meeting of the committee of the Aberdeen University Council anent the establishment of lectureships for the promotion of higher education in Aberdeen, under the direction of the professors of the University, held in the University Buildings, Broad Street, on the fourth day of November 1876: present—Professors Geddes, Brazier, Nicol, and Struthers, Dr. Beveridge, Messrs. Runcy, Yeats, and Ogg. Mr. Ogg, convener, in the chair. A letter from Professor Bain, who was unable from indisposition to be present, was read to the meeting. He suggested that a requisition should be obtained from the public, showing that there was a demand for the teaching proposed to be given before applying to the Government for pecuniary assistance. This suggestion was approved of, and it was resolved to carry it out by laying the matter before the Town Council and other public bodies, and by appealing through them and through the press to the public. After the discussion the committee agreed to recommend that the subjects of the proposed lectures should be the following (to begin with), viz.:—1. Chemistry; 2. Natural Philosophy; 3. Natural History (Geology and Zoology); 4. Botany; 5. Anatomy and Physiology; 6. the English Language and Literature. That if the results of the teaching on these subjects should be satisfactory, others be taken up in addition. That the lectures be given in the University Buildings, Broad Street, or other suitable place, by the professors of the subjects named, their assistants or substitutes, during the winter sessions; except on botany, as to which the time should be arranged by the professor to suit himself and those purposing to attend his lectures. That at first lectures be given on two subjects only in each winter session, but the number of subjects to be taught simultaneously be increased if there should be a demand for such increase. That every course consist of twenty, or from twenty to twenty-five lectures, being about one weekly on each subject during the winter sessions. That to cover the expense connected with the lectures, and to ensure their permanence and efficiency, the Government be asked for an endowment or money grant of £100 or thereby for each course of lectures, to be paid only if the number of persons taking out tickets for the course should not be fewer than forty. That tickets for any course of the lectures be issued to all persons desirous of instruction, who, as a test of their sincerity, should pay a small fee for each course, of, say, 7s. 6d. or 10s. That the lectures be of a teaching character, and such as would prepare or assist those who might desire to go before the Science and Art Department at Kensington for a certificate, or before any other examining board. That while each professor should deliver or have the direction of the lectures to be given upon his own subject, the whole arrangement should be carried out under such regulations as the Court of the University might enact thereanent. The prominent features of the scheme are the utilizing of the present professors, their assistants, class-rooms, and apparatus, in order to afford to those who desire and are capable of receiving it a higher education.

9739. You mean persons who are not students of the University?—Yes; those who are not regular students of the University. And this, we think, might be done by a kind of negative selection—if that is not a contradiction—by requiring those who are to attend to pay a small fee, which would prove their interest in the matter. We think that it is hopeless to ask for a system of universal secondary education on account of its expense. Some people—at all events in the North—already complain of the expense of primary education, and many think that secondary education to the whole community is perhaps not desirable. They say, in the first place, that a great proportion of the labouring classes are not fit to receive it; and that, besides, we must have labourers, and to give

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them an education beyond the position they are to occupy probably would have no other effect than making them discontented. It would make them bad labourers. The idea of the scheme is, that by it the best men of all classes would be drawn out, and have an opportunity afforded them, at a cost which they could afford, of receiving higher education. In every class there are a certain number of men who are highly endowed intellectually, and they are the people who would naturally crave for such education. No one who has had occasion to observe what takes place in, for example, a large manufactory, where many people are occupied about the same kind of business, can have failed to notice that of, say, two or three hundred men, all except two or three do their work in a perfunctory kind of way, without taking any interest in what passes through their hands, or in the machinery and forces by which the work is carried on. The two or three, however, quickly come to understand the process, to think and reason about it. And so it is in every walk of life, that, here and there, there is a man richly endowed intellectually, and he craves naturally intellectual food, and so strives to master any subject that may present itself to him. It is by the best class of working men that almost all the improvements which cheapen cost and improve quality in our staple manufactures have been made; and if they had higher education, especially in science, the advantage, I have no doubt, would be very great nationally. We are at present losing the position we have hitherto maintained in manufactures and the arts in consequence of other nations being better educated in science than our practical men. The Germans and Americans, in particular, are getting before us by reason of the superiority in knowledge of their men of business and working men.

9740. The instruction you propose to give by means of these lectures is almost entirely scientific instruction?—To begin with only.

9741. Out of the six subjects the only one not scientific is English language and literature?—Yes. But the professors of other languages—Professors Black and Geddes—who take a special interest in this subject, think that ultimately, if this scheme succeeds, other subjects ought to be introduced.

9742. Are you aware that some courses of a similar kind have been given in Dundee by professors from St. Andrews?—Yes.

9743. You have made yourself acquainted with that?—Yes; but the difference between their scheme and ours is, that the St. Andrews professors lecture without a fee, and they may do so for a year or two. But, to ensure permanence and efficiency, an endowment or money grant is necessary; because, in the first place, there will be unavoidable expense; and, in the second, because gratuitous lecturing was tried by the Aberdeen professors fifteen or twenty years ago, and failed. There is now more thirst for instruction, and the lectures would qualify for obtaining certificates from the Science and Art Department, which are considered very valuable, especially in England.

9744. Then you would propose that the young men attending these lectures should be students of the University?—No.

9745. Not matriculated students?—No. It is intended to give an opportunity of obtaining it to every person who earnestly desires University teaching, but who may be unable to attend the University as a regular student. There are so many instances of people who, amid great difficulties, have risen to eminence in every department of science and learning, and who, if they had had such advantages as are here offered, would have much earlier in life risen to the eminence they ultimately attained, and so been of greater use to themselves and the country.

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9746. The work you expect the lecturers to do is very much what would be the work of secondary schools, if there were a sufficient supply of them?—Yes; that is what we propose.

9747. *Mr. Campbell.*—Is there any fee charged in Dundee?—No. Besides, the character of our teaching would differ from that proposed in Dundee. We propose that it should not be of that declamatory general lecturing kind. By showy experiments you can fill a hall at any time; but it is only by systematic teaching, such as we propose to give, that the sciences can be of practical value.

9748. *The Chairman.*—Do you contemplate experimental teaching?—Yes; experiments are necessary. But we mean that the lectures should be of a teaching character, as distinguished from those of a popular or declamatory kind. It is intended that each course should be such as would enable a person of average ability to master the subject—the course to consist of about twenty lectures.

9749. By twenty lectures you mean twenty meetings of the class?—Yes; one a week.

9750. Would you have one hour of teaching at a time, or more?—Probably longer time than one hour.

9751. *Dr. Muir.*—Would you have the young men examined?—It is proposed that they should be examined. Examination is a particular feature of Aberdeen instruction. In Marischal College the system of examinations began which with us has had advantages of very great value. The students are examined at the end of the week on the subject of the lectures during the week.

9752. *The Chairman.*—You are aware, are you not, that some people think the Universities are doing too much of the work of secondary schools now?—Yes; but there is no other machinery to overtake the work.

9753. You propose to begin this system with teaching science, but you contemplate extending the teaching to other subjects?—Yes.

9754. To what would you extend the subjects?—Probably Latin would be one of the first extensions. Professor Black has, I understand, many applications to teach Latin, and, what is rather remarkable, from ladies as well as gentlemen. There seems to be an interest taken in that subject. Probably also, if there was a sufficient demand for it, the teaching might be extended to Greek and metaphysics. But that would just be according as there was a demand. The great advantage of this scheme is its cheapness. We have already the whole machinery—teachers, classrooms, apparatus, and museums.

9755. *Mr. Campbell.*—At what time of day is it proposed to hold the classes?—In the evenings, or such other time as is convenient for the bulk of the people. Lectures of the kind have hitherto been in the evenings.

9756. *Dr. Muir.*—The University authorities could themselves do all this, could they not, if they thought proper, without superior authority?—They could do it, but we ask a money grant for the reason I have stated. We do not think that lectures would be of any practical value unless the professors and their assistants gave themselves earnestly to the work. They cannot be expected to sacrifice valuable time gratuitously.

9757. *The Chairman.*—And to what extent do you think it will be necessary to subsidize them?—The idea was that any person desirous of getting instruction might attend two courses in the session at one time, and £200 a year would be sufficient to cover the expense.

9758. You mean that a grant of £200 a year would be sufficient for the whole establishment?—Yes; £100 for each of the two courses every

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session. There is just one difficulty, but it might be got over by subscriptions. Four of the subjects are already taught in Marischal College—anatomy, physiology and chemistry, and natural history. There are class-rooms fitted up, and apparatus also. There are valuable museums connected with the physiology class, the natural history class, and the chemistry class. All these would be available for teaching. The difficulty I have mentioned exists in connection with natural philosophy, which is taught at Old Aberdeen, where the apparatus is. Now, some apparatus would be required for that class; but that probably would be got by subscriptions.

9759. Would that cost a great deal of money?—No. In Aberdeen, I may mention, the Mechanics' Institution has done a great deal of good work; but it cannot give scientific teaching of the branches mentioned, because it has no apparatus, and no class-rooms adapted for scientific teaching, and no museums. To illustrate the effect of training in developing genius, it may be stated (without giving names) that more than one person has attained to European fame whose latent powers would probably never have been called out but for the training in art of the Aberdeen Mechanics' Institution.

9760. You don't expect the lectures you are now proposing to interest men in art?—No; I am speaking of these instances as illustrations of the fact that training may develop latent powers, which, but for the opportunity of drawing them out, would have been lost to the world.

9761. You think you have got a good field to cultivate?—Yes; and by extending the field,—that is, by giving to other towns the benefit of University training we ask for Aberdeen,—you will extend higher education still farther, at the least possible cost.

9762. You have a very good secondary school in Aberdeen, have you not?—Yes.

9763. Does it keep up its reputation now as high as it used to be?—No; and we don't understand why it should not do so. In my day there was no school in the North to be compared with the Grammar School of Aberdeen. There was then a very eminent teacher of Latin there, Dr. Melvin. Since his day the school has fallen off.

9764. Is there any reason why science should not be taught in the schools?—No, except that you have not the teachers and the apparatus.

9765. Why not incorporate the teaching of these subjects with the teaching of the Grammar School?—That has not been thought of. But, in the first place, there are no class-rooms arranged for scientific teaching there; and, in the next place, I don't think professors would care to go to a school to teach. The proposal, however, has never been made before, and the objection which I have stated now is one which occurs to me just at the moment. It would not embrace the class for which our scheme is chiefly intended.

9766. *Mr. Campbell.*—You have science classes in connection with the School Board, have you not?—evening classes under the Science and Art Department?—I do not think they are organized yet, but they intend to have something of that kind.

9767. You spoke of your request being for £200 a year; but in the paper you have put before us you speak of £100 in the case of each course of lectures?—Well, we propose to have two.

9768. Only two in one year?—Yes; six would be too many to hold at one time. Six subjects, and two of them taught each session.

9769. It would take three years altogether to enable a student to go through the six?—Yes.

9770. *The Chairman.*—You contemplate that young men who are

attending should be working at their trade during the day, and should be taking instruction at their spare hours?—Yes; to afford an opportunity to all classes of getting higher education at a cost which all could afford; and to make the Universities now, as they were at the beginning, available to all classes.

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Advocate,
Aberdeen.

9771. *Dr. Muir*.—Would it not be better to improve the Mechanics' Institutes to effect your objects than to prosecute your scheme?—You could not do that except at a great expense. There are no class-rooms there adapted for scientific teaching, no proper apparatus, and no museums, nor can they command teachers of the same class as professors. They taught chemistry in a way until lately—until they found they could not do it effectively; and the chemical class has gone away from there. The Institutes do a very great deal of good; there is no question about that, for many young men have risen to distinction by means of them.

9772. *The Chairman*.—Have you explained this scheme fully?—I have nothing further to say about it. The main feature in it is, as I have said, to utilize the present University machinery, to provide a sum of £100 a year for each course, to cover the expense connected with the lectures, and to enable the professors to use their assistants, through whose labour much of the work must be done. The money payment would be less than the Government pay at present for a similar amount of instruction through the Science and Art Department.

9773. Do you think the professors of the different branches you have mentioned here would all be willing to enter into the arrangement?—Yes; except probably Professor Thomson, who lectures in Old Aberdeen. He has been in bad health for some time. The work would have to be done by his assistant.

9774. You suggest that these classes might be taught by the professors or their assistants?—Yes.

9775. According as arrangements might be made for the time?—Yes.

9776. Have you anything to suggest with regard to what is in the reports and resolutions of the Council?—No. The whole scheme works well enough, except this, that the interest given to the Council is so small that it would not have been kept together, if it had not been the hope of getting additional power for the Council in the Court. That is the only practical difficulty that is felt, so far as I have seen, in the working of the machinery of the University.

9777. Suppose the Council received additional representation in the Court, would that be satisfactory without any other change?—I think it would. They would be fully represented, and might hope to get their views, if reasonable, sometimes given effect to.

9778. What amount of additional representation is asked by the Aberdeen Council?—They want the Council to be composed of nine members; they wish to have two additional representatives to themselves, and they propose to give the Senatus one additional.

9779. *Mr. Campbell*.—How do they propose that the three assessors from the Council should be elected?—By the Council.

9780. By the majority?—Yes.

9781. Have they not considered it better to give each member of Council only two votes, so that the minority would be represented by one assessor, as well as the majority by two?—No; that has not been proposed.

9782. What do you think of that yourself?—I think it would be fair; but I don't think there is much party feeling in the Council. I fancy they would elect the three men they thought best.

W. F. Ogg,
Esq.,
Advocate,
Aberdeen.
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9788. Would there not be a danger of neglecting some profession if the three were all elected by the majority?—I don't think so.

9784. *The Chairman.*—What is the profession that predominates in the General Council?—The clergy.

9785. They predominate by a considerable number, do they not?—Yes.

9786. Are you not afraid of ecclesiastical politics interfering?—We have not been. The suggestion is new to me; but I quite see how by laying their heads together they might be able to do what you suggest; but hitherto there has been no appearance of anything of the kind. The clergy are all far apart. Indeed, any manœuvring would be likely to proceed from others, and not from them.

9787. You mean that they are locally far apart?—Yes; they do not meet often.

9788. But in point of experience you have not found that, in the election of a representative to the University Court, feelings or influences of that kind have been prejudicial?—No; excepting at the beginning, when there was a contest. On the occasion of the last two or three elections, we have agreed upon a man. When there appeared to be a division we met and talked the matter over, and ultimately agreed to take a moderate man. Dr. Christie has been several times elected.

9789. Who met and talked, and came to the arrangement you indicate? Was it people resident in and about Aberdeen?—It was people resident in Aberdeen who made the arrangement; the others entered into it.

9790. Is there no danger of the nomination of the whole three representatives you propose falling into the hands of people resident in the city?—It might be so if there was a feeling or desire of the kind. Dr. Christie was not a resident in Aberdeen when we elected him. He is now in Fife. There was some party feeling once in the University, arising mainly about the library. We desired very much to have it in Aberdeen, but we were defeated. That has been almost the only bone of contention amongst us.

9791. At least since the union?—Yes.

Adjourned.

SATURDAY, 3d February 1877—(Fifty-Fifth Day).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman*.
THE LORD JUSTICE-GENERAL.
DR. JOHN MUIR.
JAMES ALEXANDER CAMPBELL, Esq.

Professor BUCHANAN, examined.

9792. *The Chairman*.—You are a Doctor of Medicine—of what University?—Of St. Andrews.

9793. You are Professor of Clinical Surgery in the University of Glasgow?—Yes.

9794. In what year was that chair instituted?—1874.

9795. The foundation was provided from private sources?—Yes.

9796. And you were appointed the first professor?—I was.

9797. We should like to be favoured with your views as to the course of study and regulations for graduation, especially in your Faculty?—I think the only point of any importance that I wish to call attention to is the fact of there being two degrees, viz. Bachelor of Medicine and Master of Surgery. At present the examination is the same, and a candidate can obtain the degree of Master of Surgery simply by application and payment of an additional fee.

9798. There are special reasons, are there not, why it is necessary to have the two degrees?—I understand there are.

9799. In consequence of their both being necessary to qualify for public appointments?—Yes.

9800. But as they are separate titles and separate degrees, you think there should be some difference in the examinations for them?—I think there should be some difference, however slight.

9801. What would be the great object of that?—Because the degrees are registered in the Government register as two separate degrees, one in medicine and the other in surgery; and I would be inclined to suggest that the difference ought to be a relaxation in favour of the M.B. with reference to the surgery, rather than an addition to the C.M.

9802. What department would you exempt the M.B. from?—I would exempt the M.B. from the present optional but universally applied, or nearly universally applied, test of operative surgery.

9803. Then, on the other hand, would you add anything to the examination for the Master of Surgery?—I would not add anything; but as there is a movement at present to allow a candidate to take a part of his examination at a stage previous to his final, if he should elect to be examined upon clinical surgery at a stage previous to his final, I would make it imperative that he should undergo a second time a test examination in clinical surgery; but if he should retain his clinical examination till the end, it is sufficient for the purpose.

9804. Is operative surgery imperative as a class in the curriculum at present?—It is not. It is not in the Ordinances.

9805. Do you think it should be?—I don't think it should be for M.B. I would leave it open to the student to get his information in operative surgery where he chose, but I would make an examination in operative surgery imperative for C.M.

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Buchanan,
Glasgow.

Professor
Buchanan,
Glasgow.

9806. You would allow him to get it either in the University or from an extra-mural teacher?—Wherever he chose, and by whatever means.

9807. *Mr. Campbell.*—It is not imperative now?—It is not.

9808. But it is usually taken as a subject of examination?—The practice has come to make it a part of the examination with the sanction of the Medical Faculty. It has come to be adopted as part of the surgical examination.

9809. *The Chairman.*—Have you any remark to make as to the department to which the teaching, fees, and examination for degrees should be attached?—If in the Ordinance or enactment operative surgery should be made an imperative course, the question must arise, who is to teach it; and I would suggest that it should be made a part of the duty of the clinical chair, and not of the theoretical chair.

9810. Do the professors whom you call the theoretical professors teach clinically?—At present they do.

9811. In the Hospital?—If they happen to be surgeons to the Infirmary.

9812. It depends upon that accident?—It does.

9813. Then if they were not surgeons to the Infirmary, and your chair had not been instituted, would there be no teaching of clinical surgery at all?—Not in connection with the University.

9814. That would be one of the branches that students would be obliged to take extra-murally?—Yes; as it was before the foundation of the clinical chairs.

9815. *Dr. Muir.*—Are you a surgeon of the Infirmary too?—Yes.

9816. That is quite independent of the University?—It is not quite independent of the University.

9817. *The Chairman.*—But you are appointed by a different body, are you not?—Yes; but there is in the Constitution of the Infirmary a clause by which the managers agree to provide for the clinical teaching of the professor in the University.

9818. But before your chair was instituted, clinical teaching was sometimes given by the Professor of Systematic Surgery, who in that case would have to teach in the Infirmary?—Yes; but the Infirmary in regard to which that charter or condition existed was not then built.

9819. You are speaking of the charter of the new Infirmary?—Yes.

9820. Therefore by that clause in the charter ample provision is made for clinical teaching in connection with the University, from the fact that the University professor must be made by them a clinical teacher?—Yes.

9821. *Mr. Campbell.*—There are other clinical teachers in the Infirmary as well as professors?—Yes.

9822. What are the precise terms of the constitution of the Infirmary with regard to the professors?—The clause is as follows:—‘The managers shall annually elect such medical officers as may be required for the efficient treatment of the patients in the Western Infirmary, it being understood that such reasonable provision as is deemed necessary by the Senatus of the University of Glasgow and the Managers shall be made for the professors of the University engaged in clinical instruction.’

9823. *The Chairman.*—Do the medical students generally attend the clinical teaching in the Infirmary?—Of the University.

9824. All the medical students?—It is not compulsory, but practically they all do.

9825. *Dr. Muir.*—Of the extra-mural teachers also?—No, they go to the other Infirmary.

9826. *The Chairman.*—Then in the new Infirmary all the teachers are

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professors?—No; there are other teachers besides the professors in the new Infirmary.

9827. I thought you said the reverse in reply to Dr. Muir's question?—I understood Dr. Muir's question to be whether the extra-mural students also attended the new Infirmary.

9828. *Dr. Muir.*—I did not mean that. I meant to ask whether the students of the University attended the extra-mural teachers in both infirmaries?—They may if they choose. It is optional.

9829. *The Chairman.*—I suppose it is the same as in Edinburgh,—a certain proportion of the teaching may be taken extra-murally?—Yes.

9830. Do you think there is room or necessity for the creation of any new professorships in your Faculty—I mean in the Universities generally?—Yes, I do.

9831. What chairs would you suggest?—Clinical chairs, where they don't exist in the Universities.

9832. You think it desirable to have clinical professors of each department separate from the teachers of that department systematically?—Yes.

9833. How many would you have?—One of surgery and one of medicine in each University. In Edinburgh there is no Professor of Clinical Medicine.

9834. What advantage do you anticipate from clinical teaching being adopted by different men from those who teach the same subject systematically in the University?—There are two special advantages; the one is, that it secures the whole attention of a lecturer to a branch that needs a great deal of care, to the exclusion of his time being occupied otherwise in teaching; and, second, that it secures to the students of the University the opportunity of being taught upon the same subject, but in a different aspect, by two different men. I may refer to Mr. Lister's chair in Edinburgh.

9835. There being a Professor of Clinical Surgery distinct from the Professor of Systematic Surgery?—Yes.

9836. Would you make attendance on these clinical professors compulsory?—I would scarcely like to give an off-hand opinion on that subject; but I would make it the same as in the case of other professors.

9837. You see some difficulty?—Yes; with regard to the present incumbents of the systematic chairs.

9838. Is there anything required in your Medical Faculty in Glasgow in the way of additional assistants to the professors?—Yes, I think so.

9839. What would you say is required?—In chairs involving the teaching of a great deal of detail, tutorial assistants would be most important and valuable, and, among others, to the clinical chairs most certainly.

9840. What special functions would you assign to these assistants?—The taking up of small classes to teach the details of examination of patients, which cannot be taught *in cumulo* to the students; the application of bandages and apparatus on the surgical side, which cannot be taught in public classes. Practically I do myself a great deal of work of that kind, but it is so much detailed that it takes away from the concentration necessary to teach in a more general form.

9841. Then, in the case of the clinical professors, you think that is specially required?—In the case of all practical chairs. I would put it in the case of all chairs which require examination in detail.

9842. What class of men would you expect to get as such assistants?—Either senior students or young men who have just taken their degrees, perhaps with honours, or high in the ranks of the students.

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9843. What amount of salary would be sufficient for them?—I should think £50 a year.

9844. Do you think men adequate and suitable for the purpose could be obtained for that?—I think so. I think it would retain in contact with the University, for the sake of study and for the emolument, men who would otherwise go and commence private practice at once.

9845. And thereby benefit both the University and themselves?—Yes.

9846. Have you any remarks to make as to the emoluments and retiring allowances attached to the different chairs?—The emoluments of many of the chairs are not large just now, and they might reasonably be increased.

9847. What is the amount of endowment of your own chair?—£110.

9848. *Dr. Muir.*—By whom granted?—The foundation. There is a foundation.

9849. *The Chairman.*—The funds were provided from private sources?—Yes.

9850. By a number of persons?—Yes.

9851. *Dr. Muir.*—Was the chair established by the University Court without the intervention of Government?—Government was informed of it. The Lord Advocate was communicated with, and it was founded, I understand, by the University authorities—Government being a consenting party.

9852. *The Chairman.*—Yours is probably the lowest endowment of any of the medical professors?—No; it is equal with the Regius chairs.

9853. *Dr. Muir.*—Do you consider that you require any further endowment?—The emoluments of the chair are so small that not for personal reasons but for University reasons I would very strongly urge the increase of the emoluments.

9854. *The Chairman.*—You have told us your salary; what amount is added to your emoluments by fees?—My total emoluments last year were £230. I think the emoluments of the chairs should be added to upon the principle of making the emoluments derived by the different practical professors approximately equal.

9855. That is to say, that those who necessarily have the smallest number of students should have the largest salary?—No, not the smallest number of students, but the smallest fees.

9856. In short, you don't say it is necessary that their salaries should be equalized, but that their whole emoluments should be equalized?—Yes, for University reasons.

9857. *Dr. Muir.*—What is your fee?—The fee is divisible. The fee is payable to the superintendent of the Infirmary. It is not taken by myself, but is payable to the superintendent of the Infirmary, and the student is allowed to take three months of clinical lectures from any professor or lecturer or surgeon of the Infirmary that he chooses, changing from one to another. The result of that is that most of the students come to me for three months, and sometimes they come for a second three months, but they may go elsewhere—to the Professor of Surgery, for instance—for other three months, and the consequence is, that the fee which would come to the professor is divided among the various teachers.

9858. *The Chairman.*—That is peculiar to the University of Glasgow?—Yes.

9859. *Dr. Muir.*—Is that the case in every chair, or is it peculiar to your chair?—It is peculiar to my chair.

9860. Do you consider that a desirable arrangement?—Not at all desirable. There are difficulties at present in the way of accommodating it.

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9861. *Mr. Campbell.*—Is the same course not taken with reference to medical fees in the Infirmary?—Yes.

9862. *The Chairman.*—Is it between you and the extra-mural teachers that the fees are divided? or is it between all medical professors who are teaching?—All the teachers of clinical surgery in the Infirmary, whether they happen to be professors or not.

9863. *Mr. Campbell.*—The same course is taken in the Royal Infirmary amongst their teachers?—Something the same.

9864. *The Chairman.*—When you told us you think the present emoluments of the chairs ought, in the interests of the University, to be increased, you don't, I suppose, think that that could be done by raising the fees of the students?—I think the expense of medical education is quite high enough for the class of men who are necessary to recruit the profession; they are much higher than people think.

9865. What kind of amount would be a suitable salary for a medical professor?—It is difficult to say, but I should say from £400 to £500 a year for the practical chairs, excluding the scientific chairs, which ought to be very much raised, but for the practical chairs it should be £400 or £500 at least.

9866. And the scientific chairs should be larger?—A great deal larger, certainly.

9867. *Dr. Muir.*—This difference you would consider necessary, I suppose, because in regard to the practical chairs the professors are in private practice?—Certainly.

9868. And the others may not be?—The others ought not to be.

9869. *The Chairman.*—Which are the chairs the occupants of which ought to be in private practice?—All, with the exception of Anatomy, Physiology, Chemistry, Natural History, and Botany.

9870. These, you think, are such extensive subjects that a man's whole time ought to be devoted to them?—I think so.

9871. And he ought not to be in private practice?—I think so.

9872. In regard to the other chairs, you think it most important for efficient teaching that they should be in private practice?—It is necessary; and if I may add to my former statement, that is the reason why I think one subject is quite sufficient for one professor.

9873. When you speak of one subject, you consider that clinical teaching is a separate subject from theoretical teaching?—Yes.

9874. In any department of medicine?—Yes.

9875. Either medicine or surgery?—Yes.

9876. I suppose the chair of Physiology is one the salary of which you specially think ought to be augmented?—I think so.

9877. So as to allow the professor to devote his whole time to it, the subject being a very extensive one and daily becoming more extensive?—Yes.

9878. Is there any other point on which you have any remarks to make, or have you anything to add to what you have already said?—There is just one subject, on which I would not give an opinion, but I suggest it for consideration. I mean the share to be taken by the different professors in the examinations for degrees. At present it is left open to the whole examining board, including the professors and the extra-professorial staff, to divide the duties between them, as they think best themselves. Practically that is sometimes attended with difficulty, and I would suggest that the Commissioners should consider to what extent the duty should be appropriated to the different professors and examiners.

9879. You mean what proportions should be necessarily performed by

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the professors themselves, and what by the non-professorial examiners? —Not only that, but what amount in the examination each professor should take.

9880. But, practically, does not each professor examine in his own department?—Not altogether.

9881. And it is done by private arrangement among themselves?—There is no statement in the Ordinances at all except that the board shall be so-and-so. It is left free.

9882. *Dr. Muir.*—Do you mean that medical professors examine on surgical matters and *vice versa*?—No, I don't mean that; but some professors take a greater share in the examination than others.

9883. *Mr. Campbell.*—Do you think it would be practicable to define by Ordinance what each examiner should do? Do you think that what you have suggested for the consideration of the Commissioners is a thing that could practically be done?—I think so.

9884. *The Chairman.*—You don't think it would be tying down or restricting professors too much to make rules of that kind?—While doing so, it might be left quite open for any professor to attend any examination as a witness or visitor.

9885. What special advantage would you expect from laying down rules on that subject?—Sometimes it is quite possible for one professor to take a larger share in the examination than another.

9886. Is that from the over zeal of the one or the want of zeal of the other?—Not from the want of zeal on the part of those who restrict themselves to the subjects of their chairs, but perhaps from—let us call it over zeal.

9887. Over zeal on the part of one and looseness on the part of the other?—No.

9888. Or modesty—diffidence?—I would not say that.

9889. Is there any other point that you would like to speak to?—I think not.

Professor M'CALL ANDERSON, examined.

Professor
M'Call
Anderson,
Glasgow.

9890. *The Chairman.*—You are a Doctor of Medicine of what University?—Of Glasgow.

9891. And you are Professor of Clinical Medicine in that University?—Yes.

9892. That chair was instituted in the year 1874?—I think so.

9893. The foundation, I believe, was provided from private sources?—Yes.

9894. And you were appointed the first professor?—Yes.

9895. May I ask what the salary of the chair is?—In round figures it is about £100 a year. Last year it was £107, 7s. 11d.

9896. Can you state what your fees amount to?—I have here a note of the fees which I received in 1875. For the winter session I received £105, and for the summer session 15s. 9d.

9897. There is a peculiarity in Glasgow in regard to the way in which the fees of the clinical professors are paid. Will you explain that to us?—They are paid upon the same principle as they are paid in the Royal Infirmary. The Glasgow Royal Infirmary issued a new scale, charging £21 for each student as a perpetual fee, and of that they take £7 as an hospital fee.

9898. By perpetual fee you mean a fee for the session?—They can attend the hospital for the rest of their lives if they like. £7 of that they

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keep to themselves, and £14 they give to the lecturers. The Western Infirmary last winter adopted exactly the same principle, with this material difference, that while the Royal Infirmary directors only take £7, the Western take ten guineas, the result of which is, that the teachers, who are supposed to be the most experienced teachers in Glasgow, connected as they are with the University, are paid a lower rate of remuneration than is paid at the Royal Infirmary.

9899. In the Western Infirmary the teachers are professors and extra-mural teachers?—Yes.

9900. In the Royal Infirmary they are all extra-mural?—All extra-mural.

9900*. *Mr. Campbell.*—By no regulation of the Royal Infirmary, I suppose?—The directors of both infirmaries may do exactly as they please. They may take the whole £21 if they like, and say to the medical teachers, you will get nothing. It is entirely in their option, and the University has no control over them whatever, except in so far as they are represented at the board.

9901. *The Chairman.*—To what extent is the University represented at the board?—I should think there are four or five representatives.

9902. Out of how many?—I don't know the number, but I should think twenty or thirty. It is a very small minority of the board that they constitute.

9903. You are not aware that that mode of paying the professors exists anywhere else except in Glasgow?—I am not aware. I am aware that in Edinburgh, Mr. Lister, the Professor of Clinical Surgery, charges four guineas for each student, and, I suppose, enrolls them himself.

9904. And gets that fee himself?—Yes.

9905. The Infirmary has nothing to do with that?—Nothing.

9906. Do the students pay anything to the Infirmary in Edinburgh?—Yes, they pay the hospital fee.

9907. But there is no interference by the managers of the hospital with the professor? It does not come through them as it does in Glasgow?—I believe not.

9908. And the managers of both the Royal and Western Infirmaries have ample discretion in regard to the teachers they may appoint?—There is a clause in the constitution of the Western Infirmary binding them at all times to provide the means of clinical instruction for the University professors. There is no such stipulation in connection with the Royal Infirmary.

9909. But the directors of the Royal Infirmary might appoint professors?—Certainly; and previous to the opening of the Western Infirmary there were professors teachers in the Royal Infirmary.

9910. But now, from the relative positions of the University and the Western Infirmary, it will practically come to be the fact, that all the clinical teaching is given at the Western Infirmary?—At the present moment it is so.

9911. Do you think that is a satisfactory mode of arranging for the payment of the professors?—I think it very unsatisfactory.

9912. Would it not be better if a certain fee was charged by the professor, and a separate payment made by the student to the Infirmary?—Very much better.

9913. That could not be done, however, without the concurrence of the managers of the Infirmary?—It could not.

9914. That Infirmary has been provided by private subscription in the same way as the new University buildings?—Yes; but the University of Glasgow gave £30,000 to the Western Infirmary.

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9915. Out of their own original funds, or out of the subscriptions they received?—I don't know which; but it is the same thing in the end.

9916. *Mr. Campbell.*—The subscriptions for the University new buildings were asked for from the public, with the statement that £24,000 was wanted for the new Infirmary?—Yes.

9917. *The Chairman.*—Is the new Western Infirmary a satisfactory building?—It is.

9918. Do you think any new professorships or lectureships are required in the Medical Faculty either in Glasgow or any other University?—I should be in favour of professors of clinical medicine and clinical surgery in all the Scotch Universities.

9919. You think it better that clinical medicine and clinical surgery should be taught separately by different persons from those who teach the same branches theoretically?—I think so. I think the duty is far too onerous for any one man to undertake both subjects.

9920. Can you give us any idea what salary would be required for those new chairs?—That is a question with reference to which there may be great difference of opinion. I think the salaries at present received by most of the professors in the Medical Faculty are far too small.

9921. But in the case of a chair such as yours, which was so recently instituted, and accepted by the University with so small an endowment, would it not be rather difficult to ask Parliament or the country to increase it?—I think perhaps it is an additional reason for asking the country to increase it that they have done what they could, and now ask the country to supplement it.

9922. If the salary was too small, ought not the University to have considered that before they agreed to take a chair with so small a salary?—It must be remembered that the salary which was offered was exactly the same as the salary of many other of the medical professors, and therefore there was no impropriety in accepting these foundations, as they were the same as the others.

9923. They are nearly all too small?—They are nearly all too small.

9924. All of them?—No; I would not say all. I think some of them are very well endowed.

9925. *Dr. Muir.*—I suppose you consider that those chairs, the occupants of which can practise privately, ought not to be so largely endowed as the others?—I think a chair such as Physiology ought to be very largely endowed, because the professor ought to devote his time exclusively to the subject of his chair; but in the case of practical chairs, such as my own, Medicine, Surgery, and Materia Medica, it is of great importance that the professors should have a certain amount of practice along with them, for the sake of experience; they could not be such good teachers otherwise.

9926. *The Chairman.*—And, therefore, such a large endowment is not necessary for them?—No.

9927. And the position of a professor is an aid to his general practice, as well as the general practice being a great aid to the professor?—To a certain extent; but I think, in the main, it depends on the individual himself.

9928. You don't think the status of a professor contributes to a man's practice?—I think it does to a certain extent, but it is an individual question to a great extent.

9929. But of course you cannot doubt that private practice contributes very much to the professor's usefulness in these practical chairs?—Yes.

9930. *Dr. Muir.*—What scale of endowment do you think ought to be

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allotted to each class of these chairs?—I think the emoluments from every chair in the University should be sufficient to induce the occupants to sacrifice a certain amount of their practice, if necessary, in order properly to fulfil the duties of the chair. But at the present moment the emoluments really amount to nothing. I should be inclined to say that the expenses of my chair are very nearly as great as what I draw from it. Therefore the only advantage of being a professor is the position, and the love of the work for its own sake.

9931. *The Chairman*.—Is there a considerable inequality in the amount of the emoluments of the different chairs?—Very great indeed.

9932. Do you think it is desirable that that should be continued?—I think it is very undesirable. I don't see why those who have the same amount and quality of work should be remunerated so unequally. I can give you an instance: my own emoluments in 1875 amounted to £224, including the endowment. The emoluments of the Surgery chair—speaking in round figures, which must be correct within a few pounds—were £723; so that they were certainly between three and four times what is obtained from clinical medicine at present.

9933. And the amount of work is about the same?—I should say that clinical lectures are more serious work; you must lecture upon the patients that you happen to have in the hospital; whereas, in systematic lectures, you can prepare a course of lectures, revising them from time to time no doubt, but giving the same lectures practically from year to year.

9934. The one is a course of written lectures, and the other is oral?—To a great extent oral.

9935. Is it from the greater number of students or from the larger endowment that the surgery is so much better?—The surgery endowment is small. It is only £100 a year; but it arises from the fees.

9936. It is from the fact of the fees being paid direct to the professor?—That is one reason. Another reason is that the students take the surgery classes two years running.

9937. Are they compelled to do so?—Not by law; but the professors divide their lectures into two distinct courses.

9938. And therefore, practically, it becomes necessary?—Practically, the students take two courses, and a few of them—not many—take three courses.

9939. In what way would you equalize the emoluments of the different professors?—I don't see any way of doing that satisfactorily, except by increasing the endowments of those who receive the smaller remuneration.

9940. *Mr. Campbell*.—You would level up?—I don't consider the amount received by the Professor of Surgery is too great, but I think the amount received by the others is far too small. Even suppose you increase the fee paid by the students, it would only increase the emoluments very slightly.

9941. *The Chairman*.—I suppose you are not in favour of increasing the fees payable by the students?—I think it would require to be done very cautiously.

9942. Considering the class of men who supply the profession, the fees are as much as they can afford?—They could not be largely increased with advantage.

9943. They are a guinea lower in Glasgow than in Edinburgh?—Yes.

9944. Do you think there would be any harm in equalizing them?—The raising of the whole of the University fees from three guineas to four

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was under discussion by the Medical Faculty not long ago, but the idea has been abandoned in the meantime.

9945. Suspended at least?—Suspended. I may be allowed to add that even if the fees were increased, I don't think it would put a single penny into the pockets of the clinical professors, because we have to deal with the Infirmary directors, and they may divide them in any way they like.

9946. If the University increased the fees, they could make an arrangement with them, could they not?—That is a very difficult thing to do. The University authorities, I think, are rather chary about interfering, unless it is absolutely necessary, with the Infirmary directors. They are anxious to avoid coming into collision with them.

9947. Considering that the University gave such substantial aid to the erection of an infirmary, was it not an opportunity to take advantage of to come to some arrangement with them?—It was a very good opportunity, and I think it was a great mistake that some very decided arrangement was not made at the time.

9948. *Mr. Campbell.*—You receive no University fee whatever, I understand?—I receive nothing except what the directors of the Infirmary choose to divide with me and the others.

9949. That you call a University fee?—Well, it stands as a University fee.

9950. *The Chairman.*—You are exactly in the same position as the extra-mural teachers in that respect?—Exactly in the same position; we are in the same position as the extra-academical teachers as regards the fees.

9951. *Dr. Muir.*—Is medical education more expensive now than it was fifty years ago?—It is.

9952. What is that owing to?—The subjects are increased. For example, it is not very many years since clinical medicine and surgery were not subjects in the curriculum at all. These are two subjects which have been made imperative; and there are others—pathology, for example.

9953. Has that not been counterbalanced by the fall in the value of money now as compared with its value at that period?—Perhaps it has.

9954. *The Chairman.*—Do you think there is sufficient provision at present in the University of Glasgow for assistants or apparatus in the Medical Faculty?—I think not. I think it is very inadequate. Some of the chairs are pretty well found in that respect.

9955. Which are those that are defective in that respect?—I would have instanced the Physiology chair in Glasgow as being very defective, but just the other day it got about £100 a year for an assistant, given by Dr. Muirhead—a private endowment. Still, that is too small for physiology, I think.

9956. Which chairs specially require more?—I think the practical chairs, such as Clinical Surgery and Clinical Medicine, require it very much indeed—as much at least as Physiology.

9957. What kind of salary would you think it necessary to give to the assistants in these chairs?—I think £100 a year would be enough. I may say that at present I have two assistants helping me in the clinical medicine department.

9958. Are you obliged to pay them yourself?—They are senior students, and I intend to give them some small remuneration.

9959. The Infirmary directors don't give them anything?—Nothing.

9960. In what special way do they assist you?—In clinical subjects

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it is necessary not only to give lectures, but also, if possible, to bring every individual student into actual contact with a great many patients, so that they may have an opportunity of examining these patients for themselves; and therefore, the more assistants one has, the more effectually will that be done; and with a large class of students, it is perfectly impossible for the professor himself to bring every individual student into contact with the patients.

9961. What number of students may you have in the Infirmary at a time under your instruction?—The directors of the Western Infirmary have divided the course into three parts,—the first course in November, December, and January; the second course for the rest of the winter session; and third course the summer session. In the first course there were fifty-six students in my class; the second course began yesterday, and I have not got my list, but, judging from the appearance of the numbers, the class will be larger this second half than it was the first.

9962. And it is at the option of the students whether they attend you or other teachers in the Infirmary?—I would not even say that. It is not, according to the present Infirmary regulations, in the option of any student to attend me continuously.

9963. Who prevents it?—The directors of the Infirmary. The bill states distinctly that no student is to be permitted to attend for more than six months the clinical lectures of any one man.

9964. Which bill?—The Western Infirmary bill. It states that no student is permitted to attend for more than six months at a time any one clinical teacher.

9965. Then the proportion of what we call in other Universities extra-mural teaching that the Glasgow student takes—I mean the proportion in reference to his extra-mural teaching—is dependent not on the rules laid down by the University Court, but on rules laid down by the directors of the Infirmary?—As regards clinical teaching. Practically, they are an irresponsible body, and may do what they like.

9966. *Mr. Campbell.*—What is their object in preventing a student attending continuously the same teacher more than six months?—Just in order to send them to somebody else.

9967. Is it to equalize the classes?—That must be the aim to a certain extent. I may mention further, that the directors of the Western Infirmary have ruled that the students, at the end of three months, must all leave me and go to somebody else. That is what happened this winter. At the end of the first three months the directors of the Infirmary ruled that, practically, the whole of my class must all go to somebody else. I went to some of the directors and got a little pressure brought to bear, and they reconsidered the question, and have now permitted the students to take the second course with their own professor. This shows the unsatisfactory position in which we are placed.

9968. *The Chairman.*—Attendance at the Infirmary, I suppose, is compulsory for the attainment of the degree?—It is.

9969. *Mr. Campbell.*—At some infirmary?—At some infirmary.

9970. *The Chairman.*—But not under any particular professor?—I believe that as a matter of right no ticket on clinical subjects should be accepted by a University Court unless that University Court has recognised that individual teacher. But I think there has been a good deal of looseness in that respect, and everybody's tickets are taken right and left without any recognition from the University Court.

9971. Is that consistent with the Ordinances?—It is not.

9972. Have these non-professorial teachers in the Infirmary received any recognition from the University Court?—They have not. They

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have never applied to the University Court for recognition, but if their tickets are sent in, they are accepted without a word being said upon the subject.

9973. Do the University Court of Glasgow recognise any extra-mural teachers?—For a long time it recognised no extra-mural teachers, but latterly it has been recognising almost all extra-mural teachers—I would not say all—provided they apply in the regular way.

9974. You don't mean that they appoint them without inquiring into their merits as teachers?—Certainly not; but they wish to open the gate as widely as they can consistently with efficiency. If any good teacher applies to be recognised now, the probability is he will be recognised.

9975. But the proportion is fixed?—The number of classes which may be taken with extra-mural teachers is fixed.

9976. Are you satisfied with the rules on that subject as they at present exist?—Yes, provided it is carried out exactly in accordance with the Ordinances.

9977. *Mr. Campbell.*—Does not the University Court before recognising any extra-academical teacher require a report upon that teacher from the Medical Faculty of the University?—Certainly.

9978. And although the Court or the Medical Faculty may not have recognised the special teachers in the Western Infirmary, for instance, have they not come to a resolution to accept the tickets of the Western Infirmary and of the Royal Infirmary as sufficient?—I am not aware that they are entitled to do that under the Ordinances. I understand that each individual must apply for recognition and that his case is individually considered and decided on. I am not aware that the Ordinances entitle any University Court to accept a body of men without the slightest inquiry as to their qualifications, merely because they happen to be hospital physicians and surgeons. And I don't see any reason why you should have one rule for teachers not connected with the hospital and another for teachers who are connected with the hospital.

9979. *The Chairman.*—While you have stated that it is necessary that students should have practical experience in examining patients, I suppose great caution is required to prevent any injury from being done to the patients themselves?—Certainly; and that is an additional reason for the appointment of recognised assistants who may not only teach the students, but see that the patients are not injuriously affected.

9980. *Dr. Muir.*—Do you think that has much effect on the patients?—I think many of the patients are very much disappointed if they are not made the subject of clinical observations. A few of them don't like it; but, on the whole, I think the patients would be sorry if the students were banished from the wards.

9981. You think practically they suffer little injury to their health in consequence?—I should think not. Acute cases are not allowed to be examined by the students.

9982. *The Chairman.*—Is there any other point, or any other addition to the points you have already referred to, that you would like to make?—I am inclined to add one remark, and it is this, that I don't think any professor in a University should be allowed to give a qualifying ticket on any other subject than his own, if that qualifying ticket is to be taken in competition with one of his colleagues.

9983. How can a man give a qualifying ticket for any department but his own?—That is what I should like to know; but it is done. That is to say, I would consider it wrong that I should give a qualifying ticket

in my own subject, viz. clinical medicine, and that I should give a course in materia medica and give a qualifying ticket on that subject also.

9984. You have no power from the University Court to lecture on materia medica, have you?—But that kind of thing is sometimes done.

9985. You mean that professors assume the privilege of teaching in departments different from that which their chairs designate?—They do.

9986. How does it happen that in one session you received fees amounting to only 15s. 9d.?—A student pays the hospital fee, which gives him the run of the hospital. If he required no qualifying ticket, there is nothing to prevent him from going into any ward or attending any teacher he likes. He requires one qualifying ticket, and therefore he takes a 'six months' course in one subject, and he can afterwards take the run of the hospital. When I received 15s. 9d., I suppose between forty and fifty students attended my lectures.

9987. *Mr. Campbell.*—Had they paid before?—The system of fees has been altered within the last six months in the Western Infirmary, and also in the Royal Infirmary, but the result, according to any system, is that after a student has got from his teachers the qualifying tickets absolutely necessary for graduation, he can get any amount of clinical teaching he likes without paying for it.

9988. *The Chairman.*—Were you obliged to teach that summer?—In the foundation of the two chairs it is distinctly laid down that the Professors of Clinical Medicine and Surgery must give a summer as well as a winter course.

9989. And they might practically be compelled to do that, and get nothing for it?—They might; and to that extent we are in a worse position than our colleagues who are competing with us, because they are perfectly free, while we are bound to teach.

9990. You mean the Professor of Surgery is not bound to teach clinically?—Not in the least. It is in his option to stop it to-morrow. Mr. Lister, when he got the chair of Surgery in Glasgow, for the first year or two was not even an hospital surgeon; and Dr. M'Farlane, the predecessor of Dr. Gairdner, never was an hospital physician during any part of the time that he was Professor of the Practice of Medicine.

9991. *Dr. Muir.*—May that same state of things go on, so that you may get no fees in perpetuity?—I don't think it is likely to go on; but we are entirely in the hands of the directors in regard to fees, unless the University Court exert its authority.

9992. From what cause is there any prospect of improvement?—I think probably it will improve. I think we are in a sort of transition state just now.

9993. *The Chairman.*—Are the directors elected by the subscribers?—Yes, or by various bodies. The Faculty of Physicians and Surgeons has the power of appointing one or two directors, and various public bodies throughout the town are entitled to do so.

9994. *Mr. Campbell.*—The Senate of the University appoint some?—Yes.

9995. *The Chairman.*—Have you anything else to state?—There is just one thing I wish to say, and it is this, that while I do not approve of the principle of professors competing with one another, I should not be inclined to insist upon the present Professors of Medicine and of Surgery being prevented from competing with the Professors of Clinical Medicine and Clinical Surgery, if these gentlemen do not invade our other privileges. I think they might be allowed to continue to give courses on clinical

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medicine and surgery, provided the principle were laid down that it was not to occur again.

9996. Why, if it is a bad thing in itself?—Before these chairs were founded, they were engaged in clinical teaching, and it might be hard, now that the chairs are founded, to prevent them from continuing what they had done before. I think it might be a fair thing to allow them to continue to do it, provided the principle is laid down that in future professors are not to compete with one another by giving qualifying tickets in other than their own subjects.

9997. Before the establishment of the clinical chairs, they gave qualifying tickets?—Yes, everybody did. I gave them too. We were all physicians and surgeons in the Royal Infirmary previous to the foundation of those chairs, and we all gave lectures, and all our tickets were accepted. But a totally different state of matters must prevail when the University founds chairs of Clinical Medicine and Surgery.

9998. *Mr. Campbell.*—Have the Professors of Medicine and Surgery any pecuniary interest in the giving of qualifying tickets?—Yes, they get fees.

9999. What fees?—We have not been paid that yet. They will probably get a guinea and a half for each student who comes to them for three months; if a student comes for six months they will probably get three guineas,—fees which otherwise would, for the most part, go to the clinical professors.

10,000. You mean as their proportion from the Western Infirmary?—Yes. I think probably the directors of the Western Infirmary will give three guineas for the winter session and two guineas for the summer session; and if a student takes one physician or surgeon for the whole six months, that would give him three guineas for the session. All these fees are added to the fees which the Professor of Surgery now gets, and it is very probable that the fees which he receives this winter for clinical teaching will exceed the whole fees received by the Professor of Clinical Surgery, or be equal to them.

10,001. *The Chairman.*—And that they will receive in addition?—In addition to the emoluments which I have mentioned.

10,002. Anything else?—I think not.

Dr. ALEXANDER WOOD, examined.

Dr. Alexander
Wood,
Edinburgh.

10,003. *The Chairman.*—You are a Doctor of Medicine of the University of Edinburgh?—Yes.

10,004. And as such a member of the General Council?—Yes.

10,005. And you were for a good many years a member of the University Court?—I was.

10,006. For how many?—Several years. I cannot at this moment recall the exact number.

10,007. You have taken a considerable interest in the proceedings of the General Council?—I have.

10,008. Would you favour us with your views as to any changes that you may think desirable on the constitution and powers of the University Court?—The first idea that occurs to me is, that I think it is a pity that it sits with closed doors. I think it would be better that the few who take an interest in University matters should be admitted to the deliberations of the Court, and I don't think that the officially prepared record of proceedings published in the newspapers creates any interest. It is of the meagrest description,

10,009. You mean the official report of the proceedings?—Yes.

10,010. Do you make any exception to that? Do you think their proceedings should always be public?—I think they should have power to sit with closed doors when necessary; but, as a general rule, I think all such courts should sit with open doors, unless there is a special reason for sitting in private.

10,011. In your experience as a member of the University Court, did matters not frequently come before you which it would have been almost impossible freely and confidentially to consult about if the public had been present?—I don't think so. I don't think there was anything that the public might not have heard, except once, and on that occasion we might have sat with closed doors. I think it would have been for the advantage of the Court had the public been present at some of their deliberations. I think there were things occasionally said and done which would not have been said and done if the proceedings had been public.

10,012. You say that it is the usual habit for courts to sit in public. Except courts of justice, is it common for such limited bodies as the University Court to hold their sittings in public?—I think the University Court does hold its meetings in public on the very few occasions when it acts judicially. The only occasion, when I was a member, that I recollect of our acting judicially, the meeting was open, but no strangers came.

10,013. When it sits as a judicial body, most people will agree with you that its proceedings ought to be in public, but do you know any instance of any other body of so limited a number holding its sittings in public?—The Presbyterian Church Courts sit in public.

10,014. But do you know any instance of a court of such limited numbers as the University Court sitting in public?—I cannot at this moment recall any analogous case.

10,015. Any administrative body?—Yes, there is one; it is not quite so small, certainly, but in it I contended most strenuously to get it to sit in public, and it did so at last. I refer to the Medical Council. It is not quite so small a body as the University Court, but it is a very analogous body; and I am sure those who opposed the change most vehemently in the Council now admit the improvement which has been effected by it.

10,016. Are the functions of the Medical Council as purely administrative as the majority of the functions of the University Court are?—I think so. They have the regulation of the whole teaching of medicine in Great Britain.

10,017. Would you apply the same rule to the *Senatus Academicus*? Do you think its proceedings should be public?—I don't know what it does. I never was present at any of its meetings, but I know that it would have been very much better on some occasions if public opinion had been brought to bear upon the *Senatus*. I cannot see any objection to the *Senatus* sitting as a court, except where it may have to deal with the character of students or professors, and then, I think, in the first instance, at all events, it should sit in private. But it would create far more interest in the University if both these were open courts.

10,018. You don't think it would have the effect of making men make speeches, as they do in Town Councils?—That is always the risk, but that can be pretty generally regulated, except when such questions as those regarding the admission of women to University degrees come up. But in the general transaction of business I don't think you would find it so. We found in the Medical Council at first, when the public were admitted, that speeches were occasionally made to the reporters more

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than to the Council, but that went off, and I am satisfied that the opening of the meetings made a great improvement.

10,019. And you don't, from your experience as a member of the University Court, think that any inconvenience would arise from the whole proceedings of the University Court being published next morning in the newspapers?—I cannot recall anything that took place in the Court which would affect my view, with one exception, and I think, with the knowledge that such a business as that was to come before us, we would have resolved to sit on that occasion with closed doors.

10,020. Do you think the General Council is sufficiently represented in the University Court?—No; I think it would be better if it had two representatives at least. I think that if the General Council were more largely represented in the Court, there would be a greater harmony of action between the two bodies.

10,021. Would you make any other addition to the Court, except one additional member from the General Council, making their representation two? Would you make any addition?—No. I think a large increase would make the Court too cumbersome.

10,022. You don't think it would be necessary to give an additional member to the Senatus, in order to balance the representation?—On the contrary, I think the Senatus having a court of their own will always have quite sufficient power. I should not like to see their power diminished in the Court, but I think their power is perfectly sufficient with one representative, because they have a court of their own which is in itself powerful. I don't think we should look upon the General Council and the Senatus as antagonistic bodies requiring to be balanced. I think it would be a pity to sanction such an idea. I think we would always find the General Council anxious to support the Senatus, except in very exceptional circumstances, as, for instance, when they refused to publish the prize list,—a monstrous mistake, which was corrected by the Council. That was a mere error of judgment; but I don't think they are antagonistic bodies.

10,023. *Mr. Campbell.*—Would you be satisfied with two representatives from the Council?—I would be satisfied with two, because I think it a pity to increase the Court very much. You would make it less a deliberative body, and more a body for discussion, if it were very much enlarged.

10,024. *The Chairman.*—Have you any other remark to make as to the constitution of the Court?—No, I don't think so. I don't know if it falls under your question, but I think the existence of the Curatorial Court separate from the University Court is to be regretted. I think the University Court would discharge the functions of the Curatorial Court much better than the Curatorial Court can do; but I presume that cannot be avoided under the arrangement with the Town Council of Edinburgh.

10,025. You consider the University Court would form a better body for the patronage?—Yes; for this reason, that the Curatorial Court are only assembled when there is a professor to elect. They have no other connection with or interest in the University; whereas the University Court are cognizant of all that is going on, and the members know a great deal more of the private life of the University than the Curatorial Court can possibly do. Therefore I think it would be better that the election should be vested in them. At all events, I think the present Curatorial Court is highly objectionable.

10,026. How would you amend it, supposing you did not think it possible or advisable to transfer the patronage to the University Court?

—The objection I take to it is its being so very much unconnected with the University. Dr. Alexander Wood,
Edinburgh.

10,027. Will you give us your opinion as to the functions of the General Council?—I think when the University Act first passed there was a great interest excited among the old graduates in the University, and they thought the Council, in which they had all seats, was to be a powerful body for good to the University. At one of the first meetings, when Mr. Gladstone presided, he knocked all these ideas out of their heads, and after that a great many who had taken an interest ceased to do so; and now I fancy the meetings are very thinly attended. I have not gone myself lately, because I have not been able, but speaking to others about going, they say, What is the use of going? it is just talk, talk, and nothing comes of it. I think that some more power should be given to the Council.

10,028. What powers do you think could safely or with advantage be given to them?—I think they should have the power not merely of suggesting, but of originating improvements, leaving a veto perhaps in the hands of the Court. It would be a more difficult thing for the Court to refuse to pass an improvement carried in the Council than to refuse to attend to a recommendation.

10,029. Would it not be very much the same thing? At present the General Council represents that so-and-so is desirable, and the Court have to consider that. Is there any difference between that and the General Council resolving to do a certain thing, and the Court having a power to agree to it? Where is the difference?—I think the power of representation is very much inferior to the power of legislation.

10,030. Even if that legislation was subject to a veto?—Yes. Take the case of the Lords and Commons,—if the House of Commons had merely a power of representing to the House of Lords, would that have the same effect as passing an Act? I think that they should have the power of passing resolutions, but that these should not take effect until the Court has approved of them. I think it would be a very much more serious matter for the Court to reject a resolution passed by the Council than simply to do as they have done in many instances—almost ignore them.

10,031. Are you of opinion that the Council, considering its constitution and the very small number of it that can possibly attend, is a suitable body to carry absolute resolutions?—I think, in the first instance, it is. I would not allow it without a check; but, in the first instance, I think it is; and I think, by giving it that power, you would keep the old graduates of the University connected with it, and give them a continued interest in the University which they soon lose under present arrangements.

10,032. Then, I presume, if the object was to interest the old graduates, you would require these resolutions to be voted upon by absent members of the Council, as well as by those present at the meetings?—I believe we would have no difficulty in having well-attended meetings, if the Council had real power.

10,033. Well attended by those within a reasonable distance of Edinburgh?—Yes. I don't think it would be well to give them proxies.

10,034. But the great majority of the Council are resident at such a distance from Edinburgh as to make it impossible for them to vote except by voting-papers?—I never saw it fail that there was a well-attended meeting when there was any real business to be done.

10,035. But that attendance was entirely by men within a reasonable distance of Edinburgh?—A great many came from very considerable distances.

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10,036. What subjects had the effect of bringing men from a considerable distance?—In the earlier days of the Council it was very well attended. I don't remember the subjects that came up, but all the meetings of the Council were well attended. The one with Mr. Gladstone in the chair, which was held in the Music Hall, was very largely attended.

10,037. What kind of proportion of its whole number do you think would be present? That was the first meeting?—Yes; and I think it was what took place at that meeting that damped the ardour of the members, and prevented them coming again. A number of them said to me, What is the use of our coming?

10,038. Supposing the Council had the power of originating legislation, subject to the veto of the Court, what proportion of its members do you think would attend? Would you expect to see a fourth, or sixth, or a tenth or twentieth of its members?—It would be a mere guess at the best that I could give, but judging from the extreme interest which was awakened at first and the large numbers that came, while it was believed that real business could be done, I should say the railways make it so easy to come from a distance that the meetings would be very numerous attended, at least when subjects of general interest were discussed.

10,039. *Dr. Muir.*—What was it Mr. Gladstone said which dissipated this idea?—He told them in effect that they were a farce, to put it shortly—that they had no power whatever, and that they had better not try to exercise any power.

10,040. *The Chairman.*—Are you aware that the opinion he then gave was founded on legal advice?—I have no doubt it was perfectly correct, and I have no doubt it was its very correctness that gave it its great effect.

10,041. At the same time there were some functions which, acting under the advice of his then assessor, Lord Barcaple, he told the Council they had no power to exercise, which they have exercised and been found entitled to exercise since, are there not?—Yes; but these are of a very limited description.

10,042. But suppose you gave this power of originating legislation on the part of the General Council, you would still not allow the question to be decided by voting-papers, as elections by the General Council are at present?—No, certainly not. In the first place, the expense would be enormous. That would be a strong objection. In the second place, I don't think it an advisable thing that men should make up their minds before hearing the argument. They would be sending in proxies on a subject which they had not heard discussed. If they took sufficient interest in the subject, there would be very little difficulty in their attending the meeting.

10,043. Have you any other remarks as to the functions of the General Council?—No, I don't think so.

10,044. Will you favour us with your opinion as to the course of study and regulations for graduation in the Medical Faculty?—I was fifteen years a member of the Medical Council, and I was chairman of the Committee upon Preliminary Education during most of that time, and therefore I had a considerable opportunity of knowing what was done in regard to it. That is the point which I should like to speak most to. I believe there have been considerable improvements in the last few years, but the preliminary education is not sufficiently well attended to in most of the Universities. It consists with my knowledge, that when the Edinburgh University, with a laudable desire to improve the preliminary education, increased its stringency a little, many students went to Glasgow, passed an easier examination there, and then came back to Edinburgh to their studies; and as long as there is a want of equal stringency in the

examinations, you will always find the students will discover very quickly where they can get through easiest, and they will go to that University.

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10,045. Even though they come back to study afterwards at another? —Yes. I don't think any one has an idea of the ignorance of general subjects that prevails among students of medicine, especially students from England. I could point out to you a book written by a professor, I won't say of what University, who got all his preliminary education in England, and it appears from that book that he does not know the difference between refraction and reflection. I think there will never be a proper study of medicine until there is some considerable improvement in the preliminary education. My friends in the Medical Council said, That is all very well, but we have no proper secondary schools in England for giving that education. I suppose there has been improvement since. I believe now that the preliminary examination is not conducted exclusively by medical professors, as it was a few years ago. That, I think, is an immense improvement; but I think there should be some very stringent regulations laid down to secure uniformity up to a certain level between all the Universities, and I have no doubt that you would find that the bodies outside would assist in that very much, for they all deplore the state of preliminary education.

10,046. What subjects do you think the preliminary education should embrace?—I would embrace all the subjects that are embraced for the degree of M.A. I don't think you could perhaps enforce Greek at present, but I think that should be done afterwards; but I would not enforce Greek at first, owing to the difficulty of their getting training in it, especially in England.

10,047. Would you substitute anything for Greek?—French or German. I would give the choice.

10,048. And you would embrace all the other subjects embraced in the Arts studies?—Yes, but not perhaps carried so high as is required for a degree in Arts. I would have been satisfied a few years ago with English grammar and spelling, if it was at all respectable.

10,049. But you are making a great advance if you go from that up to the requirements of the M.A. degree?—We have made that advance, I hope. When I speak of English grammar and spelling, I mean that the tests of knowledge of the most elementary kind should be much more rigidly applied than at present.

10,050. Where are the students to get their logic and moral philosophy, for example?—I think all students for a degree in a University ought to attend the literary classes in that University. I think our great want in Scotland is the want of a proper distinction between the mere licence to practise and the degree which stamps them as University men; until that is put right, you will not have medical education properly arranged.

10,051. *Dr. Muir.*—How would you secure uniformity in the standard of this preliminary instruction?—In the first place, I think the details of the subjects prescribed should be very carefully considered, and not limited to a mere general statement of the subjects. Then, I think, the examination should be mainly conducted by Arts professors in the University, and you should have assessors, not for each University as at present, but the assessors should travel about from University to University, so as to secure that no University falls below the standard. The temptation of a University that wants to have a large number of graduates, either because they think it creditable, or for the sake of the fees, is always to reduce the standard so as to attract students. Now if there were travelling assessors, having no tie to any particular University, but carrying out the same plan in all the Universities, that would be prevented.

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10,052. *The Lord Justice-General*.—You would not expect identity of examination papers to prevent uniformity?—To a great extent. I have always opposed the one portal system; but I think you should guard against the possibility of there being an easier examination in one University than another.

10,053. *The Chairman*.—Do you think a great diminution in the number of medical students would take place from requiring such an amount of attainment from them on their preliminary examination as would necessitate their attending a portion of their time in the Faculty of Arts?—I don't think a diminution in the students would take place, but I think a diminution in the graduates might take place. I would have two preliminary examinations,—one which should ascertain that every student had a sufficient knowledge of general science and literature to enable him to profit by his medical studies, and whatever was his ultimate destination in medicine, that should be gone through. But when you put your academical stamp on a man and call him a Doctor of Medicine of your University, you should secure not only that he has the requisite medical knowledge, but also that he has a sufficient knowledge of literature and science to enable him to take his place among gentlemen, and that he should be an educated man, which is not necessarily the case at present. If you had that, you would not have the mortification of seeing over an apothecary's shop Doctor So-and-so, and finding him selling drugs over a counter, the reason of which is the easiness and cheapness with which a degree can be obtained in our Scotch Universities. And now that you have instituted a lower degree, there is not the same necessity for admitting all to the higher degree.

10,054. What you said before about the comparatively high examination that you would require was only applicable to the students who were going on for graduation?—The very high one; but I would have a preliminary examination quite as high as at present, if not a little higher, for all students in medicine.

10,055. What subjects would you embrace in the lesser examination?—They should have sufficient knowledge of English, mathematics, and French, for there is a great deal of valuable French medical literature now. Then, I think botany might be well withdrawn from the medical course, and put in as part of the preliminary examination. Botany is a useful science for teaching method to all students, but its numberless details, and the exercise of memory required to retain its nomenclature, renders an examination in it burdensome to students after they have really commenced their professional studies. Then perhaps chemistry, natural philosophy, of course, and natural history, and Latin.

10,056. Latin even for those who are not going on to graduate?—Yes.

10,057. While you think that would diminish the number of graduates, you don't think it would reduce the number of students?—I don't think it would reduce the number of graduates on the whole, but it would reduce the number of those who went for the higher degree; and it would do so for a time, but only for a time.

10,058. At present do the majority of those who take the lower degree not go on for the higher?—That I am not aware of.

10,059. *The Lord Justice-General*.—There has hardly been time to judge of that by experience? How many years is it since the lower degree was instituted?—It must be about seven years, I think, but I cannot speak with confidence. I have spoken of the want of uniformity in the University, but there is also a want of uniformity where a certain number of lectures is announced, for there is a way of getting rid of that; the

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students shirk that number of lectures, and thereby get through in a smaller number of years than they ought to do. There is more of an attempt to get knowledge squeezed into a smaller number of years.

10,060. That is an evasion of the regulations?—Yes; I think it requires to be put a stop to. It is a very bad thing for the students.

10,061. *The Chairman*.—Do you approve of the system as it at present prevails with regard to the recognition of extra-mural teaching?—My own inclination would be to have more open teaching than we have. When I studied at the University we had a great many effete professors, if I may use a chemical term; and, while we had to pay our fees to them, we never thought of getting our information from them.

10,062. In those ancient days there was not the same facility for getting rid of an effete professor?—No, there is an improvement in that respect; but I don't think the professors would suffer materially if the classes were more thrown open, and it would be a great encouragement to suitable persons to come forward. Take, for example, the subject of physiology; there are two classes of teaching in medicine—there is a kind of teaching which brings practice, and there is a kind of teaching which banishes practice. If you teach practice of medicine or midwifery, or perhaps materia medica, it brings you into notice, and may attract patients to you; but if you dedicate yourself to teaching such subjects as physiology, you are supposed not to be true to your mistress of medicine, and to be going off with strangers, and that rather injures you in practice. Now, supposing you have a fair physiological teacher in the University, there is no man who would have encouragement enough to start a class of physiology for the few pupils who would come to him out of the University, if there are only four classes allowed to be taken. Then, if your professor dies, you have a much more limited selection; whereas, even if you had a very good teacher inside, if you had a good teacher outside he would attract students, and prepare himself for taking the chair when it was vacant. That does not apply to the practice of medicine, because there are other attractions; but it applies to other subjects which are perhaps not so much under the head of medicine proper. Now in all the German Universities almost any man who gets the degree of Doctor conferred on him is supposed to be fit to teach, and does teach; and that there is a want of such a thing is shown, I think, even in our own Universities, where the house surgeons and house physicians in hospitals get up small classes of their own for teaching things. I was told the other day of a case where a house surgeon actually got fees for teaching a small class. That is the sort of thing that makes the German Universities so popular. A man who has a particularly good ear for the stethoscope would get up a class for that; another, with a good ear for the laryngoscope, will get up a small class for teaching that. All that is not recognised here; and I think a little loosening of the strict bands in the University might be of advantage. Of course, one would not like to see the emoluments of the professors reduced materially; but that might be met in another way.

10,063. *The Lord Justice-General*.—What would you propose in that direction?—I think it might be done in this way: that any graduate of a University—for I would limit it to the graduates, who are supposed to be fit to teach—who had made any subject his special study, should be allowed by the University Court to institute a class on that subject; and as the time of the medical student is limited, and the number of subjects he has to attend to is very great, the University Court should have power to allow a dispensation from attendance at so much of the lectures of one of the professors as might give time for attendance on such special classes.

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10,064. *The Chairman*.—Then you would institute a kind of lectureship?—Yes; and I think they would prove most valuable assistants to the professors. I have not the slightest wish to put the extra-mural in antagonism to the University school; but I think the University does not avail itself of the assistance it might get to the extent which it might. Almost all the present professors have been trained in the extra-mural school.

10,065. But do you think it would work well to allow the continuity of professors' lectures to be broken by permitting students to miss a bit of them?—There is no doubt that since the classes were thrown open by the Town Council, and more recently by the University Act, it has worked a great improvement in the University; and I believe you would not have got retiring allowances for professors so easily, if it had not been that the professors felt themselves compelled to retire.

10,066. But that is the general question of extra-academical teaching, and does not refer to my question as to your idea of allowing an extra-academical teacher to teach a bit of the subject, and exempt the students from attending that bit of the professor's lectures. That is what I understand you to suggest?—No; but what I contemplate is that there might be two or three smaller classes, and that these might be united together and held to be equivalent to one of the larger classes in the University. It is not that a bit should be cut out of the professor's course and the students exempted from it, but that three or four of those small classes united might make up a course equal to one of the professor's courses. I would allow the University Court to judge of that, as they would be sufficiently jealous for the advantage of the University. I think they should be taken as part of the curriculum.

10,067. Would you give the University Court unlimited power to say how much should be taken extra-murally and how much intra-murally?—No; I think a fourth of the classes might be taken extra-murally.

10,068. Then you would not extend that?—My own idea is that there should be no limitation at all. I think you should say to the student, You will be examined on such and such subjects, and you will have to give proof that you have attended lectures on this subject. Get your education where you like, and we will take you for examination; but you get it from some person approved by us.

10,069. *The Lord Justice-General*.—Don't you think that is rather inconsistent with the Scottish University system, which makes the University the teaching as well as the graduating body?—Yes; but it is a question whether a University of itself *per se* ought to be both the teaching and the licensing body. I should not like to see our Universities like the London University, graduating men who come from all parts of the world, without the slightest check on where they get their education; but I think if you give to the University the power of saying who are to be the recognised teachers outside its walls, you might safely allow the students to find their education from one or other. The natural tendency, if the men were equally good, would be to take it within the University. Of course, I would not allow one to undersell the other. The natural tendency would be always to go inside the University, unless there was a very superior teacher outside. I think that would be quite enough protection to the professors.

10,070. As to your proposal to take two or three courses of lectures outside the University, and make them equivalent to one of the courses required for the curriculum within the University, I wish you would illustrate that by an example. Take, for example, the requirement that the student shall have attended a course of lectures of not less than

a hundred lectures on the practice of medicine?—Suppose we take surgery. Dr. Alexander Wood.
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10,071. Very well, take surgery?—Lectures on systematic surgery embrace a wide variety of subjects. Take diseases of the eye,—a man may be a very good surgeon, and not have given any special attention to that. Then, syphilitic diseases form another very important branch of the surgical course, and they would be better treated by some one who was surgeon to the Lock Hospital, and so on.

10,072. But just say what three sets of lectures on special subjects you would accept as equivalent to a course of a hundred lectures on surgery?—Well, I think I would accept special lectures on eye diseases, special lectures on syphilis, and a special course of instruction in bandaging, fractures, and dislocation; and if he got all that, he would get all that was valuable in surgery, and of a much more valuable kind. The sort of knowledge acquired from systematic courses either of medicine or surgery can generally be acquired as well from books; the special knowledge communicated by such practical classes as I suggest can be given only by teachers in connection with an hospital of considerable size.

10,073. *The Chairman.*—Have you any other remarks to make on this subject of extra-mural teaching?—I think not. I would add that, now that there is a retiring allowance for professors, there is probably no more delicate way of allowing them to know when they should avail themselves of it than by having an extra-mural teacher on the same subject.

10,074. Are there any other points you would like to bring before us, or any additional remarks on the points already adverted to?—No; nothing else occurs to me.

Adjourned.

MONDAY, 5th February 1877—(*Fifty-Sixth Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

SIR WILLIAM STIRLING-MAXWELL, Bart.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

JAMES ALEXANDER CAMPBELL, Esq.

Professor SIR WILLIAM THOMSON, examined.

10,075. *The Chairman.*—You are Professor of Natural Philosophy in the University of Glasgow?—I am.

10,076. You have been so since the year 1846?—I have.

10,077. And you have consequently had a long experience of the University, and the working of its system of instruction and graduation?—Yes.

10,078. You are a Doctor of Laws of what Universities?—Of Trinity College, Dublin, and of the University of Cambridge, and also a D.C.L. of the University of Oxford.

10,079. Were you at one time a member of the University Court of

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Glasgow?—Yes. I was appointed in 1871, and I held office for the regular period until 1875.

10,080. Whom did you represent in the Court?—The Senate.

10,081. I suppose you have also been in the way of attending meetings of the General Council of the University?—I have.

10,082. So that, in short, you have seen the working of all the different branches of the University system?—Yes.

10,083. You were yourself educated at Glasgow, were you not?—Yes.

10,084. Will you give us your opinion of the constitution and powers of the University Court, and whether you think any change should be made in that respect?—I think that on the whole the present arrangement is satisfactory, with a few exceptions. In the case of an election to a professorship, I think it desirable that the Senate of the University should be more fully represented in the University Court. A more full representation of the Senate, although it might be desirable for the regular business of the Court, is not so very important as in the case of an election to a professorship; but for such an election, I think that such knowledge of the duties of a professorship as is had by members of the Senate, and particularly by members of the same faculty as that of the professorship for which the appointment is to be made, is of vital importance to the electors.

10,085. What means would you suggest for having the Senate more fully represented on these occasions?—That on these occasions special additional members of the electing body should be appointed by the Senate.

10,086. In short, for the purpose and on the occasion of an election to a professorship, you would just add some members of Senate to the University Court?—Yes.

10,087. How would you select them?—By election of the Senate. I should be afraid to make a general rule that it must be some one of the same faculty that should be chosen, because there might sometimes be ambiguity, for instance in the case of chemistry, as to whether it is to be reckoned in the Faculty of Medicine or in the Faculty of Arts. On the other hand, I would have perfect confidence, from my long experience of the Faculty and Senate of the University of Glasgow, that a judicious appointment would be made by the Senate in any such case of one or more of their own members to be added to the University Court, and so constitute the electing body.

10,088. How many would you propose to add?—Two.

10,089. The present number of the University Court is seven, so that that would increase the number to nine?—Yes.

10,090. *Dr. Muir.*—What do you think of the plan which some witnesses have suggested here, of having a report from the Senate upon the qualifications of the several candidates for any particular chair?—I don't feel very confident that that could be worked well so as to produce good results.

10,091. Something of the kind is said to act well in the University College of London?—The circumstances there are very different from those of Scotch Universities.

10,092. *The Chairman.*—Do you think that the University Court, with the addition you have now proposed, is as good an electoral body for the administration of patronage as any other that can be found?—I think so. The University Court has great power in the actual management of the affairs of the University, and I think it very desirable, therefore, that it should in the main be the elector of the professors. The University Court may be expected to act better in ruling over the affairs of such an

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institution when the executive is appointed by itself, than it could if the executive was appointed by another body. The proposal that I make of the addition of two to the University Court in this case is for a special reason; but I would still wish it to be felt that the University Court is in the main the electing body of the professors. Besides, thinking it desirable that the body that has the power in the management of affairs should have the power also in making the appointments, I think that the general question of the mode in which the electoral body is to be chosen is perhaps as satisfactorily answered by the choice of the members of the University Court, according to the present law, as it could be answered by any other plan for an electoral body that could be proposed.

10,093. There is a good deal of patronage administered by the University Court in Glasgow, is there not?—There is.

10,094. And since that patronage was vested in them it has been very satisfactorily exercised, I suppose?—Yes.

10,095. *Dr. Muir.*—Do you think the whole of the patronage should be vested in the Court, including those chairs that are not at present in their gift?—Yes. I think it would be a very great improvement indeed, in the Scotch Universities, if the patronage of all the professorships was vested in the University Court, with the modification I have suggested.

10,096. *The Chairman.*—You would then prefer to see the Crown patronage transferred to the University Court?—Very much. Although the Crown patronage has no doubt been exercised in an exceedingly satisfactory manner on the whole, I think that it is not the best way of securing satisfactory results. It inevitably implies a very considerable amount of influence through members of Parliament. Now, although the Home Secretary is no doubt determined to make the best possible appointment, it is impossible for the candidates and for the Home Secretary and other ministers to prevent an immense amount of personal canvassing through members of Parliament, and even through electors of members of Parliament; so much so, that I have known a case of a memorial being sent to the Home Secretary from a number of members of his own constituency, who approached him on the footing of being members of that constituency, and petitioned in favour of a certain candidate.

10,097. Generally speaking, of course, neither the Home Secretary nor any other minister of the Crown can know much of the chair or its requirements, or of the merits of the candidates personally?—No.

10,098. And therefore he must derive his information on the subject from others?—Yes. The Home Secretary no doubt takes great trouble to obtain trustworthy information.

10,099. But still he must proceed upon the information and opinions of other people?—Yes.

10,100. And your preference for the University Court, as I understand it, as the depository of patronage, is because the members of that Court are in a position to form their own opinion?—Yes.

10,101. Is there any other reason why you think that body a better administrator of the patronage than a minister of the Crown?—That body, with a more ample representation of the Senate for the particular purpose of elections to professorships, would be more vitally interested in the success of the University than any other body, except the Senate of the University itself, could possibly be.

10,102. You would not propose to vest patronage to any extent in the Senate, would you?—There are many reasons for and perhaps some reasons against patronage being altogether vested in the Senate. I myself believe that the Senate would make a very satisfactory electing

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body for professorships, but I see the objections that are entertained against the patronage being in the hands of the Senate; and, so far as I have been able to form a judgment, I think the University Court, with such a representation as I have now suggested from the Senate, might be in all circumstances and at all times as satisfactory a body for making an election as could possibly be. I think that in the old times, when the elections in the University of Glasgow, for instance, were made by the Faculty of the University, there was not quite the same feeling as now exists that the success of the University depends on choosing the best men that can possibly be obtained for the places. I believe that in all the Universities this feeling has grown to such a degree that, if the patronage were now vested in the Senates of the different Universities, there would be but one desire on the part of the Senate in each case, and that would be to get the best possible man; but I think that the same result would be secured by the smaller body, the University Court; and with the information that would be before it by the additional members that I have proposed, I believe the representation of special skill with reference to the duties of professorships would be sufficient to give it the guide that is wanted.

10,103. Former experience is hardly in favour of the administration of patronage by the Senate, is it?—The Senate of the University of Glasgow has never had the patronage of the chairs. When the patronage was vested within the University itself, it was in the Faculty of the University of Glasgow. The Senate was then the larger body, as it comprehended all the members of faculty who were professors on the older foundations, and also professors on newer foundations. Their professorships were commonly called *Regius Professorships*, so that the Senate included a much larger body than the Faculty.

10,104. But the patronage was administered by the Faculty?—Yes. It was administered by what was called the Faculty of Glasgow College or University. That was not one faculty, such as the Faculty of Arts, or the Faculty of Medicine, or the Faculty of Law.

10,105. It was, in fact, the professors on the old foundation?—Yes. The technical name faculty was given to that body. Although there were some cases undoubtedly in which it might be said that a better appointment could have been made, I don't think that on the whole it can be said that the patronage was bad or unsatisfactory. I well remember some cases in which the division among members of faculty as to certain appointments was very keen. I don't think we can now say whether the best appointments were made in these cases or not; but, considering the limited character of the faculty, it being limited to a certain number of the professors, there was a general feeling of dissatisfaction that the patronage should be in their hands. I believe if there had not been that distinction between the professors in the Faculty and the larger body of the Senate—if, in short, the appointment had been by the Senate, it would have been found to be very satisfactory; but I don't at all mean to imply that I think it would be better to have the patronage in the hands of the Senate than in the hands of the University Court, with the addition that I now suggest.

10,106. Is there any other change that you would suggest with regard to the University Court? You are aware, I daresay, that the General Council desire to be more fully represented in the Court?—Yes.

10,107. What do you say to that claim?—I scarcely think it would improve the constitution of the University Court.

10,108. But suppose they had one additional member, don't you think it might be an advantage in increasing to that extent the number of

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members of the Court, so as to ensure the attendance of a quorum?—I think if an additional member is appointed to represent the General Council, and an additional permanent member to represent the Senate, it might, if for no other reason than making more sure of a quorum, improve the constitution of the University Court.

10,109. But the Senate is pretty fully represented in the University Court as it stands, is it not? They elect one assessor, and there is also the Dean of Faculties, who is a member of the Court?—Yes. The Senate has virtually two.

10,110. And they are also in a certain sense represented by the Principal?—I scarcely think that he can be considered as being a representative of the Senate in the University Court. No doubt his presence is very important as forming a means of communicating the wishes of the Senate.

10,111. The Principal, of course, may not represent the views of the Senate, but may have views adverse to those of the Senate?—He may.

10,112. At the same time, he forms a connection between the two bodies which is very useful?—There is no doubt of the usefulness of that connection. I think that two representatives of the Senate, besides the Dean of Faculties, in the University Court, would certainly not injure the quality of that Court; and I believe it would increase its usefulness, as giving for general purposes more of the special knowledge that seems to me absolutely essential for the purpose of election to professorships.

10,113. *Dr. Muir*.—If that additional representative were given, would you still have the two additional members from the Senate on the occasion of the election of a professor?—Even in the event of there being two regular representatives of the Senate in the University Court, I think it would be desirable that there should be two special representatives appointed for the case of an election to a professorship,—these special representatives not necessarily to be chosen out of the faculty to which the professorship to be filled up belongs, but their appointment to be made freely by the Senate.

10,114. *The Chairman*.—Do you think the University Court as the governing body in the Universities has worked well since its institution?—Very well.

10,115. And harmoniously with the Senate?—Yes.

10,116. *Mr. Campbell*.—The University Court consists only of seven members at present, and the quorum required is five?—Yes.

10,117. Do you not think the quorum is too large if the number of members is not to be increased?—If the number of members is not to be increased, I think a smaller quorum than five ought to suffice.

10,118. Practically the Court consists only of six available members, one of the seven being the Lord Rector, and generally he is not available?—Yes. I should say, with the present number of the University Court, that four ought to be a quorum. I think with the proposed augmentation of members,—that is, with an additional representative from the Senate and an additional representative from the University Council,—five might be a very proper quorum.

10,119. *The Chairman*.—Do you think any change should be made on the functions of the General Council?—There is no change that I see which I think it necessary to suggest. I have not, however, studied the subject sufficiently to be able to form a perfectly decided opinion; but I don't think it desirable that any change should be made, which would give the General Council more power than it has at present of actually controlling or legislating for the work of the University.

10,120. You don't think that body is well adapted for the exercise of such a power?—Certainly not. I think it is very well fitted for dis-

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oussing and forming, or helping to form, public opinion on the subject; and I think the system of having the semi-annual meetings has a very beneficial effect in that respect.

10,121. They are not very well attended, however, I believe?—They are certainly not very largely attended.

10,122. It is suggested that they never will be well attended, but will probably go on diminishing, unless they get something more to do. Is that a sufficient reason to give for enlarging their powers?—I don't think it is a sufficient reason for giving them more power in the affairs of the University.

10,123. Would you favour us with your opinion as to the existing curriculum for graduation in Arts, and the regulations as to the mode of proceeding to a degree?—I think it is somewhat too heavily loaded in the classical department, and the department of logic and moral philosophy,—perhaps I should say more particularly in the department of classics, on this ground, that a great deal more time than the mere faithful attendance on the classes of Latin and Greek prescribed is required to get the degree. I think that the list of books to be prepared is too heavy, and that without at all wishing to lower the standard of elementary scholarship in Latin and Greek required to obtain a degree, the amount of labour for a person who has a fair elementary knowledge of Latin and Greek ought to be less than it is now.

10,124. How would you effect that?—With respect to Greek, I feel no hesitation in saying that a student ought to be able to enter the University knowing no Greek, and to learn enough of Greek to pass for the degree by the attendance at the prescribed classes, and a suitable amount of private study in connection with it. With respect to Latin, I think a less long list of authors should be prescribed.

10,125. Where do we find the list of books to which you are referring?—In the University Calendar.

10,126. *Dr. Muir.*—Don't you think the time of the Professor of Greek might be better occupied than in teaching the rudiments of Greek from the very alphabet?—No; certainly not. I have a very strong opinion on that subject.

10,127. Do you think that should be done by the professor himself, and not even by an assistant?—I certainly think the professor should take advantage of an assistant for a considerable part of the elementary teaching, but I think it is most important that the professor himself should take a large part of the very beginning of the teaching in his department.

10,128. Is that with the view to make it more scientific and more complete and perfect?—Yes. It seems to me that what is to be prescribed for a University in the way of Greek is liable to be misunderstood from the idea that we are scarcely now clear of, that Greek is a mere schoolboy subject. In the old times the public schools, in England particularly, had actually nothing but Latin and Greek to teach the boys, and their duty was to keep them occupied for six or eight years at Latin and Greek. It would be necessary to give up one or other altogether for the University degree, if such ideas still represented correctly the state of the case. I should be very sorry indeed to see Greek given up; but I believe that for young men of somewhat more mature age than schoolboys, an amount of knowledge of Greek that would be of exceeding value to them throughout their lives might be given by a first-rate scholar and a man of high capacity, such as a professor of Greek in one of our Universities ought to be, in the course of the attendance that is actually prescribed according to the present rule for a degree. I should,

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I repeat, be very sorry to see Greek removed from the compulsory subjects for the degree in Arts; but I think the condition ought to be insisted on that it is only as much Greek as can be learned in the University, and that any one who has learned so much as, with faithful attendance and a due performance of his duties, a young man of moderate capacity may be expected to attain to, should be entitled to receive a certificate for his Greek. Of course, in every subject, there are cases of such mental incapacity that no amount of labour will enable the candidate to pass. I cannot make an exception in that respect for one subject more than another; but what I insist upon is, that the quantity of Greek required should not be more than can be learned in the two sessions required by the present rule.

10,129. But what objection do you see to a man coming up well prepared? Would not that be much better than beginning with the rudiments?—I have no objection whatever to him coming up well prepared, but I have the strongest possible objection to not teaching enough of Greek to those who come up with no previous knowledge on the subject.

10,130. *The Chairman.*—You would not reject a student because he comes up with no Greek?—No; certainly not.

10,131. I see in the subjects of examination for a degree of Master of Arts, for the next examination, the Greek is stated thus—‘Homer—Iliad or Odyssey, any continuous portion of not less than 750 lines. Euripides—Hecuba. Herodotus, book ninth, with questions upon grammar and history.’ Do you think that too much to require?—I should scarcely like to answer that question except by a conditional proposition. It is not too much if a student knowing no Greek can pass an examination on these subjects satisfactorily after two years’ study of Greek. It is too much if a student of average ability and of diligence cannot pass the examination, or cannot be sure of passing the examination, at the end of his second session.

10,132. But you seemed to think that the books prescribed are too numerous?—It was with reference to Latin that I said the books were too numerous.

10,133. Would you be disposed, then, to curtail in any way this prescribed amount of subjects for the examination in Greek?—I would submit it to the test which I have now stated.

10,134. But is not that a matter upon which the University must have experience? There are many students, are there not, who come up to the University knowing little or nothing of Greek, who study for two years, and who then pass this examination?—Yes.

10,135. How do you find that matter stands?—I am not able to answer; but I have a strong impression that in the classical department the labour required to get the degree is too great. I think if a shorter list than that could test fair elementary knowledge of the Greek language, a shorter list should be adopted. Indeed, I have little hesitation in saying that it ought to be a shorter list of subjects, because I am perfectly sure that fair elementary knowledge could be fairly tested with such a list. No doubt, something of a knowledge of Greek literature should be added to an elementary knowledge of the language, but that ought to be very little; I think that very little more than a fair elementary knowledge of the language ought to be required in either Latin or Greek.

10,136. *Dr. Muir.*—Do you think that a University ought to require nothing more than to be satisfied with an elementary knowledge on such subjects?—No; but for an ordinary degree in the classics, it would be a question between that and nothing, because it would be utterly impossible

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in the great pressure of subjects for the degree to keep up both Latin and Greek as compulsory subjects, unless the requirement is limited with respect to the amount of labour required to pass. I am so exceedingly anxious that neither Latin nor Greek should pass out of the curriculum, that I feel it is in the interest of classical learning that I make these suggestions.

10,137. *The Chairman.*—To pass to the subjects for examination in Latin. I see that for the next examination the books prescribed are—tenth book of the *Æneid*, first and fourth books of the *Odes* of Horace, second book of the *Annals* of Tacitus, with translations from English into Latin, and questions on grammar, history, and antiquities. Is your opinion the same with regard to that as you have expressed with regard to the examination in Greek?—Yes. I think it is too heavy a list of subjects.

10,138. In short, you would, I understand, limit the number of books more than anything else?—Yes.

10,139. What do you say with regard to the other subjects of examination—logic, moral philosophy, and English literature? Do you think too much is required there also?—I think there is too much of metaphysics required in the course of logic and moral philosophy. There is a good deal of metaphysics in each, and I think that a shorter course in each department would be sufficient.

10,140. You mean a shorter course of instruction?—Yes.

10,141. Is a student required to attend the logic class for more than one year?—No; only one year, but a large number of hours.

10,142. The Professor of Logic does not confine himself to the formal art of logic in his teaching, does he?—I don't know how the logic class is conducted now, but my own recollections of the logic and moral philosophy classes are, that the logic was an exceedingly valuable class; and that it did immense good to the young student, and also to the older and somewhat uncultured student, that constituted the great mass of the students of Glasgow University in those days. The essay writing and the drilling in the ancient logic were exceedingly useful; but I thought that the amount of metaphysics that was given in that class and the two hours a day of moral philosophy which he attended afterwards were too much, and that one thorough session of logic and moral philosophy would have been an improvement, in the way of leaving more room for other subjects for which time could not be given.

10,143. Then I understand you to mean that you think too much time is given to mental philosophy and metaphysics?—Yes.

10,144. Logic is a very small subject in itself, and unless combined with something wider, it could hardly form a subject for a winter course?—No.

10,145. But it is, as I understand, the amount of time devoted to mental and metaphysical philosophy in the logic and moral philosophy classes taken together that you think excessive?—Yes.

10,146. Do you think that one session should do for the whole subject?—I think it should.

10,147. Including logic?—Yes, including logic. A short course of the ancient logic ought to be included in that, and a great deal of exercise in writing essays, such as the late Professor Buchanan used to give in the logic class.

10,148. You have been speaking always of the ancient logic, but there is such a thing as the modern logic also—reasoning by induction?—Decidedly. The inductive reasoning was always made a very important part of the course of logic in Professor Buchanan's time, and, I have no

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doubt, is so still; but I must say that I speak in great ignorance on that subject, because I really have no knowledge of the teaching of logic and moral philosophy in the Scotch Universities, except as they were taught in the University of Glasgow forty years ago.

10,149. Do you think that the subject of logic, including not merely the ancient logic, but also the Baconian system, and, in short, the science of inductive reasoning generally, is not sufficient to form the subject of a winter course?—No. I think the ancient logic, and the Baconian logic, everything, in short, that is technically called logic, should be taught in a very short time. Two or three days would suffice for the ancient logic, and two or three more days to get thorough exercise in the conversion of propositions, and the rules for the formation of syllogisms; while a few lectures giving explanations regarding the inductive method would naturally follow, with the classification of fallacies, and the categories and all the principles and technicalities of modern logic.

10,150. Then, as I understand, you would make it a part of the same course as mental and metaphysical philosophy?—Yes.

10,151. And you would think one winter session sufficient for the whole?—Yes, or two lighter sessions than at present—two sessions of each not more than one hour a day.

10,152. At present are there two hours in each of these classes?—Not two hours every day, but two hours on certain days of the week in each of those departments.

10,153. We now come to the subjects of mathematics and natural philosophy. Will you give us your views about them?—I wish we had a great deal more of both.

10,154. What would you propose in the way of increased instruction upon these subjects?—Better teaching of them in schools, and more time for the pupil to learn them.

10,155. But what would you do in the way of extending the amount of instruction in mathematics and natural philosophy?—I would propose to get a great deal more time for it in the course of the University attendance.

10,156. Would you do that by abstracting time from the other subjects, or would you require a longer attendance at the University in order to attain that object?—I would not require longer time at the University.

10,157. Then you would do it entirely by abstracting time from the other subjects?—I think that by having a somewhat shorter list of classical authors, in preparing for the degree there would be more time for learning mathematics, both in preparation for natural philosophy and in connection with the natural philosophy class, than there is at present, without effectual diminution of scholarship, and without injuring the classical department. I would not like to do anything that would really injure the classical department, but I think what I have indicated would give more time for mathematics and natural philosophy without any real loss to classics. I think that one hour a day could be spared from attendance between the logic and moral philosophy classes, so as to free the students, and give them more time for preparation in mathematics and natural philosophy.

10,158. In short, you would let mathematics and natural philosophy borrow one hour a day from logic and metaphysics and mental philosophy?—Yes.

10,159. Would you expect them to be able to borrow anything from the classical department?—Scarcely—in the hours of attendance.

10,160. But perhaps you would expect to get some more of the

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students' time out of classics by limiting the requirements in the classical department?—Yes. The students, I think, are too hard worked, on the whole, and I feel a difficulty in prescribing such exercises and insisting upon such preparations as seem necessary, when I know that many of them are really overburdened with work.

10,161. Would you propose to add any fresh subjects to the curriculum?—I would wish very much to have chemistry in the curriculum for the degree in Arts, were it practicable to bring it in without loss in the other departments.

10,162. But you think probably the student is already sufficiently burdened?—I think he is quite sufficiently burdened. But setting aside mathematics and natural philosophy, and the time required to be devoted by the students at home in preparation for these, I would say that the addition of an hour a day of chemistry, instead of the hour a day I propose to take from logic and moral philosophy, would be a great improvement in the curriculum. It would rather tend to lighten it, and make it less burdensome to the student by substituting an hour's attendance on such a subject as chemistry, which is such a variety to the mind from classics and logic and moral philosophy, and even from natural philosophy, and would, I believe, be much less fatiguing to him than the same amount of attendance on any of these other subjects would be. I believe also that the addition of an hour a day of attendance at chemistry, with the expenditure of scarcely any more time than attending the lectures, would allow a candidate to pass an examination in chemistry which would be a very considerable addition to the value of that which is certified in the degree.

10,163. Do you contemplate giving only one hour a day of chemistry for one winter session?—Yes.

10,164. Do you think the knowledge of chemistry acquired in that time would be very valuable?—Very.

10,165. Would you propose to add any other subjects in natural science?—No.

10,166. *Dr. Muir*.—Would you insist upon a uniform course for all students proceeding to the degree of M.A., or would you allow a variety and choice in the subjects, suitable to the tastes and capacities of the different students?—A certain course ought, I think, to be prescribed to all as a minimum.

10,167. Then you would require the same amount of knowledge of the physical departments of mathematics and natural philosophy and chemistry from all the students?—You cannot obtain the same amount of knowledge from all, but some amount of knowledge should be required from all. Of course, there may be a great deal more in some departments than in others, and that naturally is the case. Some of those who pass at the very minimum of knowledge required in natural philosophy may have very high knowledge in classics,—their time being given chiefly to that department.

10,168. And you would allow a superior knowledge in one department to compensate for inferior knowledge in another to a certain extent?—Yes, to some degree I would; although the present system does not allow that, but requires certificates to be given separately in the different departments. At present we can only take into account mathematics and natural philosophy together. Sometimes answering what would be below the minimum in experimental science is compensated by superior answering in mathematics, or *vice versa*, and the candidate may get through. I think it is desirable there should be some extension of that system, but yet there are difficulties in the way of it, and perhaps the

fairest is the present arrangement, according to which the examiners meet in the different departments and discuss the cases.

10,169. *The Chairman*.—The Arts degree in the Scotch Universities has hitherto represented a very considerable variety of attainments,—I mean, attainment in a variety of subjects?—Yes.

10,170. More so than the Arts degree of most Universities, I believe?—I believe so.

10,171. Then I understand that you approve of that, and desire to maintain it, subject to the alterations which you have suggested as to the distribution of time among your different subjects?—Yes.

10,172. You are aware it has been suggested that a student should be allowed to take his degree in Arts upon examination in a variety of different subjects out of which he may have his choice,—in short, that, having laid a foundation of the classical studies which we have at present, he should be allowed after that either to pursue his classical and literary studies further, to the exclusion of other things, or to devote himself to physical science or to natural science or to mental and metaphysical philosophy. Do you approve of that process of dividing the subjects and giving alternatives to the students?—Not for the ordinary degree.

10,173. We have that as regards honours at present?—Yes.

10,174. How do you think it answers there?—I think it answers well there; but I think that that which is required in mathematics and natural philosophy for the ordinary degree is the very minimum that should be allowed to be considered sufficient, so that if such a proposal as that to which you refer were carried out, it would be necessary to have an examination in mathematics equal to the present minimum pass examination before a candidate could be freed from that subject and allowed to expand into the other subjects of study, so that it would come to be equivalent to taking the departments earliest in his course that he has least liking for or least capacity for. He is at present at liberty to do that; but I think to compel him to do that would not increase the facility for a candidate devoting himself to the subjects that he has most capacity for and most inclination for.

10,175. You are assuming that among the subjects rendered compulsory on all mathematics would be included?—Yes.

10,176. But suppose that were not so,—suppose that classics only were required as the basis from which each student is to start, and that after having gone through his classical studies, he might be allowed to select his own department, you would not approve of that?—Not at all. No degree should be given without some knowledge in the several departments at present included in the curriculum.

10,177. *Dr. Muir*.—Are there not a number of students of good average capacity who have great difficulty in acquiring any mathematics at all?—Not for the amount of mathematics required for the degree. I don't say it is want of will to apply, but it is want of application that constitutes the difficulty in passing in mathematics and natural philosophy for the degree.

10,178. Might not a man have an innate incapacity to acquire mathematics?—No. A man to whom it is possible to pass an elementary examination in Latin and Greek is certainly quite capable of passing the minimum examination in mathematics and natural philosophy. The failures that we sometimes see among candidates result from want of application. I don't say that in the sense of wilful misapplication of their time, although sometimes it is the case; but it results from the students having been overburdened, not merely with other subjects, but with private teaching and with efforts to support themselves.

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10,179. Do you think the knowledge which the students acquire in those cases where they have less capacity for it is the result of an intelligent knowledge of the subject, or do they merely get it up by rote and by memory?—They have an intelligent knowledge of it.

10,180. *The Chairman.*—But are there not some men distinguished in the literary world who live and die in the belief that they cannot understand mathematics?—They may have the same belief that they cannot understand mathematics which many people have that they cannot play the violin,—they don't know 'until they try. I believe many people believe truly that they cannot play the violin, but no one can believe truly that he cannot learn so much mathematics and natural philosophy as is required to pass an examination. There are no people, who have mental capacity enough to learn Greek and Latin sufficiently to pass, and mental capacity enough to pass in the departments of English literature and logic, who have not capacity enough to learn intelligently the amount of mathematics and natural philosophy required for their degree.

10,181. Is there any other change that you would suggest in the curriculum?—No, I think not.

10,182. Or in the general regulations for graduation? Do you think there is anything in the mode of conducting the examinations which is faulty and requiring amendment?—I think not.

10,183. You have introduced in Glasgow, I think, degrees in Science?—Yes.

10,184. But only recently?—Only recently.

10,185. Do you think it desirable in connection with that that there should be a separate Faculty of Science?—No.

10,186. You would leave the scientific teaching as it is at present, partly in the Faculty of Arts and partly in the Faculty of Medicine?—Yes.

10,187. Do you approve of the arrangements which have been made for graduation in Science?—I approve of them generally.

10,188. What do you say to the proposal to institute entrance examinations?—On the whole I disapprove of it. We have certain entrance examinations at present to test whether a student is qualified to enter a higher class instead of a junior class. These examinations I think are beneficial; but I think the institution of entrance examinations on any other principle than that would be likely to be injurious. I strongly disapprove of sending any one away from the University. If a candidate comes up knowing no Greek, and learns Greek from the beginning in the class, that is as it ought to be. If a candidate comes up knowing no Latin, we ought not to turn him away from the University, but we ought to take security that the teaching of the class shall not be injured by the admission of a student who knows nothing of the language to begin with, and probably there ought to be supplemental teaching by assistants to meet such cases. I would have no objection to an entrance examination arranged for the purpose of exclusion being applied to candidates for admission to the University under the age of sixteen, but I think any person over the age of sixteen coming to the University ought to be admitted without entrance examination at all.

10,189. You approve of the existing examination which is the condition of a student being admitted to the senior Greek, Latin, and mathematical classes in his first session?—Yes.

10,190. Would you have any objection to that examination being made to apply to students who are proceeding from the junior to the senior classes?—I don't see that it would be necessary there. If a

student has obtained a certificate of the junior class, that certificate of itself implies that he has performed the exercises and passed the examinations of the class, and I don't think it is desirable that there should be another examination before entering the senior class.

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10,191. Do you think that the professor's certificate is a sufficient security that the student has so far profited by his attendance upon the junior classes as to be as good a man as a man who passes that examination?—No. I cannot consider that the professor's certificate would have that effect. It must be remembered that if a candidate gets into the senior class at first, he must either have been unusually well taught or have unusually good capacity. A student who faithfully attends the junior class, and does the duties of the class, must, if he has mental capacity at all, be admitted to the senior class without being detained another year, whereas to be allowed to pass with only one session of attendance is another matter; and nobody can consider it a hardship if a person of such mediocre capacity as would just allow him to pass with the two sessions should, on such teaching as he may have had before he comes, be allowed to pass in one session. If those who have taken the regular course have done all that their capacity allows them to do of what is prescribed for the degree, the professor's certificate implies that they have been sufficiently diligent and attentive; it implies that they have not neglected their duties as students. The test then that they have to fulfil is already fulfilled; they have learned all they can; but it is a different thing to apply for admission to the senior class direct. There must then be a more decided evidence of superior scholarship.

10,192. *Dr. Muir*.—Might they not have learned more if they had known that at the end of the first session, or at the entrance to the second, they would be obliged to pass a rather strict examination?—No, I think not; because they are examined every day in the class, and the exercises in the class every day keep them to their work. We have no right to require more from students than a faithful performance of the exercises of the class and a regular attendance at the hours of the class.

10,193. *The Chairman*.—When you speak of their being examined every day in the class, do you mean that there is an examination every day in the class?—Each student is liable to be examined *vivâ voce* every day, and he is also required to perform certain exercises.

10,194. But out of a class of several hundreds, it is a very small percentage that can be called upon in any one day?—Yes; but then there are regular examinations in writing which every member of the class is obliged to pass, besides his liability to be examined *vivâ voce* every day.

10,195. Do you think that the students who have attended the junior classes in the University of Glasgow are not fit to pass the examination of which we have been speaking?—I think the examination of which we have been speaking should be rather higher than could be passed by the somewhat less than average student who goes through the first year.

10,196. Then, supposing that you were to limit the requirement of this examination to those who intend to go on to take their degree, do you think it would be desirable in that case?—No.

10,197. In short, you are not for interposing any examination between the first and second years for any purpose?—No.

10,198. And I understand you are quite against the institution of any examination as a condition for entrance to the junior classes?—Quite, except for boys under sixteen. It seems to me that it would be a violation of the whole principles of the Scotch Universities if we were

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to reject a man of twenty-five and send him back to school in any department whatever. I think, on the contrary, that the University should with its professors and their assistants supply in the elementary departments the means of allowing such a man, if he has capacity, to go on and take advantage of the whole University system. A man of that age will learn in the University what he could not learn by going back to school. Besides, he won't go back to school. The mode of teaching adopted in school is adapted to young boys, and it never could answer for some one who, at sixteen or eighteen, has discovered in himself, as is not unfrequently the case, a desire and a capacity for higher learning, whether in classics or mathematics. Therefore it would never do to put him back to school. Such men do sometimes in the most wonderful way struggle through the University course, and attain to very high excellence, and even attain to results which are of real value to them, and which give them a step up to a position of life which is more suitable than the one the man would have been bound to if he had not had the help which the University gives him for carrying out his higher aspirations.

10,199. What do you say as to the length of the University sessions? Do you think any change should be made in that respect?—No, I think not.

10,200. You are not for lengthening them?—No.

10,201. The length of the session at Glasgow is something over five months, is it not?—It is quite six months—from 1st November to 1st May. There are a few days lost at the beginning by the coming in of the Sunday, but it is as near as the weeks allow a six months' session. We go on till the very 1st of May.

10,202. How long is your vacation at Christmas?—Just Christmas and New Year's day and the intervening days.

10,203. That is to say, it is eight days?—Yes.

10,204. Do you not find the length of the session too long a strain on either the professors or the students?—No, I think not. We break at Christmas. I think it refreshes every one sufficiently to carry on for the four months that remain; and then there is a Monday holiday each month which also gives a little refreshment. I don't think a longer vacation at Christmas would be at all desirable. I have heard it urged, but I believe the Scotch students would not profit by a longer vacation. They could not afford it. A day or two days off work at a time is a real refreshment to the students; but three weeks to a Scotch student would not be a refreshment at all, because they cannot afford to go away to the country and enjoy themselves. What the great mass of our students look to in a vacation, is time for undertaking work to help to support themselves—such as assisting in schools, and giving private instruction. A very large proportion of our students do that. If the Christmas vacation were lengthened to three or four weeks, they still could not in it undertake any work of that kind, and their means in certain circumstances are not such as to enable them to enjoy a vacation of that length in the same way as students of a wealthier class who can go home, or visit friends at a distance, or spend their time in any of the ways which people with means can.

10,205. In short, idleness costs money?—Yes. And, indeed, a Scotch student can take thorough benefit by way of that refreshment to his overworked mental faculties in having a day or two days' intermission, or a week's intermission at Christmas, from attendance at classes; but I don't think large vacations would answer. It would break up the time of attendance at the University into two or three terms, with a com-

paratively short summer vacation; and it would make it a much more expensive system than it is now.

10,206. You have a summer session for some purposes?—Yes, for the medical classes.

10,207. In the Medical Faculty only?—Yes.

10,208. Do you not think it might be desirable to have some teaching in summer in some of the other faculties?—I think it very desirable that there should be tutorial teaching to be had in the University through a great part of the summer. In my own department I have that. I have my laboratory open, and I have two assistants constantly there all summer. I don't bind myself to be there personally, but I am there frequently, and we are conducting experimental researches the whole summer, whether I am there or not. If there is a demand for tutorial teaching during the whole summer, or any part of it, it ought to be supplied; and in my department I say we are ready to supply it.

10,209. There is a demand for it in your department, I understand?—I am afraid I cannot say that there is a demand.

10,210. There is a supply, apparently?—There is a supply, but there is not the demand I would like to see. I pay assistants out of my own resources for carrying on experimental researches in the laboratory.

10,211. And are there very few students who avail themselves of their assistance?—Very few. The few who do the work are chiefly scholars who, for holding a scholarship, have certain duties attached to it—experimental scholars, and sometimes students whom I employ occasionally to conduct experimental researches, besides my regular assistants who are there.

10,212. Do you think in the Faculty of Arts generally, that there is no demand for tutorial teaching in the summer months?—I think not. The experiment was tried some years ago, but there were very few applicants, and the result, I think, seemed to prove that there was not a demand.

10,213. *Mr. Campbell Swinton.*—The better classes, who alone can afford to avail themselves of such teaching, go out of Glasgow almost entirely during the summer, do they not?—Yes.

10,214. *Mr. Campbell.*—But is not the want of tutorial classes in summer alleged as one reason for a greater number of Glasgow young men not being students?—I have heard that alleged, but I have not seen evidence in support of the allegation which was at all satisfactory. I think it possible, however, that a very thorough establishment of tutorial teaching in summer might be taken advantage of by residents in Glasgow; but, at the same time, it must be admitted to be very doubtful.

10,215. *The Chairman.*—Do you think that any new professorships, or any new lectureships, are required in the University of Glasgow?—No, I think not—at least, none that I think of at present. I don't mean to say that they may not come to be desirable, but I don't see any that could be added at present with advantage.

10,216. The whole subject of natural history is committed to one professor, is it not?—Yes. I did not think of the natural history department. It might be very desirable to have a Professorship of Geology, and a Professorship of the other departments of Natural History.

10,217. That is to say, if you disjoined geology from the present chair, and provided for it by the creation of a new chair, that would be enough?—Yes.

10,218. Botany being already provided for separately?—Yes; but I think a great deal could be done by additional assistants of a high class. For instance, in the class of engineering, it would be very desirable that

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there should be a well-qualified teacher of surveying to act under the professor.

10,219. Associated with the professor?—Yes, associated with the Professor of Engineering; and that there should be at least one skilled master of drawing in connection with the same chair.

10,220. *Mr. Campbell.*—Do you mean that there should be a lecturer on surveying in addition to the endowed assistantship founded by Mrs. Black?—Yes, in addition to that. There is ample work for an assistant to assist in carrying on the general business of the class. This surveying should be taught by some one who can give up a great deal of time in taking the pupils out to the field. Then there would be the drawing master, who would be there a certain number of hours a day, showing the pupils how to perform mechanical drawings, and criticising their work while they are performing it,—staying beside them while they are doing their drawings, and giving them all the teaching that a drawing master can give.

10,221. *The Chairman.*—Surveying, I suppose, should be taught almost entirely out of doors?—Yes; but the principles of surveying would properly be taught by the professor.

10,222. But practical surveying would be taught out of doors?—Yes.

10,223. How do you stand with regard to assistance in your own class?—I am in great need of more provision in that respect.

10,224. What have you got?—I have the official assistant provided by the late University Commission. The recent foundation by the widow of the late Dr. Neil Arnott and myself has provided for a demonstratorship of experimental philosophy. The provision is not so large as it ought to be by any means—it is only about £130 a year. I think that an office of that kind, with a salary of £500 a year, ought to be provided in connection with the natural philosophy chair, and at least one more highly qualified assistant besides the present official assistant.

10,225. What is the salary of the assistant provided by the Ordinance?—Only £100 a year.

10,226. Is that inadequate?—Yes; it is quite inadequate. It is adequate for an assistant of a different class from that which was, I believe, contemplated by the Ordinance. It is adequate to provide an assistant in performing the experiments in the class; but it is not adequate to provide that which was also contemplated by the Commission as part of the functions of the assistant, namely, to give assistance in the examinations of the class, and to lecture occasionally. My official assistant is a man of great capacity; the official salary could not at all secure such a man ordinarily; and I make a large addition to it myself.

10,227. To what extent?—I add £50 a year to the £100 that he has from the Ordinance.

10,228. What do you think would be a sufficient staff for your chair in the way of assistants?—An ordinary assistant, who should be curator of the apparatus and lecture assistant to the professor, at a salary of £100.

10,229. That is to say, a sort of mechanical assistant?—Yes; a mechanical assistant. Next, a demonstrator of experimental physics, who should take a considerable share in the lecturing on experimental physics, and occasionally also in the more mathematical teaching.

10,230. What should his remuneration be?—Certainly not less than £300 a year. £500 a year would be more suitable. Then, a second scientific assistant, who might be of a junior rank to the demonstrator, but also a highly qualified man,—a man of good education and culture,

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who would assist in the examinations and exercises, and in tutorial teaching.

10,231. What should his remuneration be?—Not less than £200. Then there should also be a teacher, whose duty would be in the working laboratory. That is provided for at present in a very imperfect manner by some of our scholarships and fellowships. We got some slight assistance in the way of managing the laboratory and the corps of laboratory workers from some of these foundations. I have only as yet, however, obtained effective assistance in that way from the three Thomson experimental scholars, who have certainly given a great deal of valuable assistance, both in investigations in the laboratory and in the teaching in the laboratory department.

10,232. Does that exhaust the catalogue of assistants whom you would require?—Yes.

10,233. How much would you require for the last-named assistant?—Not less than £150 a year.

10,234. Then your entire requirement for assistants would amount to £700 or £750?—Yes; and while I say £300 for the chief assistant, I think that would really be the very minimum. I think it should be estimated at £500.

10,235. In short, the aggregate of £700 or £750 is a minimum?—Yes, quite a minimum.

10,236. *Mr. Campbell.*—And towards that you have now £100 from the Ordinance, and £120 from the foundation?—Yes; we have £220 towards it. I have shown my conviction of the importance of that by helping to make up the foundation. I am, in fact, paying the demonstrator so as to make up his salary to £500 a year, and I wished to make that, so far as I could, secure to my successor in office, whoever he might be, because I felt the benefit that was obtained by additional assistance of that kind.

10,237. *The Chairman.*—How are you provided with apparatus and laboratory?—There is a great want of an apparatus fund. The fund of £100 a year for expenses does not allow the purchase of fresh apparatus. It barely covers wear and tear, and the cost of the necessary repairs on the apparatus, and the cost of material and wages for carrying out illustrations in lectures, and the ordinary work of the laboratory.

10,238. To provide adequately for your laboratory and for class illustration, what sum do you think would be required annually?—£100.

10,239. What have you now for that?—I have £100 a year for that purpose; but that is all swallowed up in current expenses. I don't think it would be necessary to fix £100 a year permanently for the purchase of apparatus, but I think there should be a fund to which application can be made as occasion serves for the purchase of fresh apparatus. I think that if £50 a year were added to the present £100, that would keep up the apparatus with the purchase of ordinary new apparatus from time to time; but there ought also to be a body to which the professor could properly apply for an expenditure of £200 or £300 when he thought it was required. There may occasionally be some great new discovery, involving the purchase of some large and expensive piece of apparatus, such, for instance, as a spectroscope. I don't fix that sum as the value of a spectroscope, but when you find a new piece of apparatus introduced which a laboratory such as that of Glasgow University ought to have, there ought to be a fund from which the cost of that piece of apparatus could be obtained. An addition of £50, although it might provide for ordinary years, would not meet such a case as that, and therefore I think there should be some additional provision for it. If the University funds,

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for instance, were sufficient for all requirements, which I am sorry to say the funds of Glasgow University are very far from being at present, I think it should be understood that the Professor of Natural Philosophy would be right in laying an application before the Senate for £100 or £200 or £300, showing his reasons for making the application. It was on that footing that I got the apparatus that I now have. Before I entered the Professorship of Natural Philosophy in 1846, there had been a small fund of £15 a year for apparatus, but even that small fund had not been drawn for many years before, and the consequence was that the apparatus-room was wholly deficient. What apparatus there was, was broken down, and there had been no new apparatus purchased, the business of the chair not having been actively conducted for many years in consequence of the illness of my predecessor. That £15 a year was unfortunately lost; it was kept by the Commissioners of Works, who resumed the management of the funds of the archbishopric, I think; and when an application was made to them to pay up the arrears and grant a fund for the future, they refused to do it. There was thus absolutely no fund for apparatus; but the Faculty of Glasgow College in those days gave grants from time to time. I do not remember the whole amount, but they gave very considerable grants for the purchase of apparatus, and all the apparatus that belongs to the University in the laboratory of the natural philosophy class was purchased in that way by occasional grants from the Faculty. I could not make such an application now in the present state of the University funds, but I think the University funds ought to be put on such a footing that they would be quite sufficient to grant applications of that kind when the propriety of the application is proved to the satisfaction of the Senate.

10,240. As to the emoluments of your chair, you mentioned what they were, I think, when you were examined before the Commission on Scientific Instruction?—Yes; I may say that I have £50 of compensation for graduation fees in addition to the ordinary salary as stated in the books. There is one point in connection with that which I should be glad to be allowed to put in evidence. The late University Commission withdrew from the Professors of Moral and Natural Philosophy an allowance out of the graduation fees which they had previously had. To the Professor of Moral Philosophy a certain compensation—if I remember right, £100 a year—was given for the loss of these fees. To the Professor of Natural Philosophy nothing was given in the first proposal, it being held that the addition of £100 a year for apparatus and of £100 a year for assistants was more than equivalent to the loss of the graduation fees. I objected to the fees being taken away without compensation, and had drawn up a memorial to the Queen in Council, when the matter was arranged. I regret very much that I had not carried out my petition, because it seems to me that the powers of the Commissioners were exceeded in doing anything that diminished the emoluments of any chair, and that as the professors had not been bound to spend any money whatever on apparatus or on assistants, it was a diminution of the emoluments of the chair to deprive him of the graduation fees, even although they did give him money for apparatus and assistants. Instead, however, of pursuing the petition, I consented to a compromise by which £50 a year was given to me for my lifetime. I have regretted very much having made that compromise, because it seems to me I have sacrificed the interests of my chair for that payment of £50 a year. I think it is absolutely essential in fairness to the natural philosophy chair that that compensation of £50 a year, given to me for degree fees, should be given to the chair permanently. Further, the compensation ought to have been

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the same for the Professor of Natural Philosophy as was given to the Professor of Moral Philosophy. The compensation to the Professor of Moral Philosophy was also given only during the life of the professor. It was Dr. Fleming who pointed that out to me, and I feel that both chairs should have that compensation permanently, and that in each case it should be at least £100 a year.

10,241. Has there been any material change in the number of students or in the amount of fees that you have received from your students since the report of the last University Commission?—There has been a large increase in the numbers.

10,242. I see that the estimated fees at that time were £300 a year. About what may they be now?—Between £500 and £600 was my last return for income tax,—I think £560.

10,243. What is the rate of fees in your class?—Four guineas.

10,244. Do you think the emoluments of the chair are sufficient?—The expenses of living have really increased so very much that £800 a year is much less now than £600 a year was forty years ago. I think the emoluments ought to reach at least £1000 a year.

10,245. *Dr. Muir.*—Would you leave the fees unchanged, or would you raise them?—I would not propose to raise the fees at present in the natural philosophy class. I think, in some of the other classes, they ought to be raised.

10,246. *Mr. Campbell Swinton.*—Your fees are higher than the fees in the Latin and Greek classes?—Yes.

10,247. *Mr. Campbell.*—Of course, in saying that you think the emoluments should reach £1000 a year, you do not take into account the value of the house? You mean that they should be £1000, plus the house?—Yes. I think that £1000, plus the house, should at all events be given for such a chair as the Professorship of Natural Philosophy.

10,248. *The Chairman.*—You were examined as a witness before the Commission on Scientific Instruction?—Yes.

10,249. And I think you then gave a good deal of evidence upon the matters we have been speaking of latterly. I mean about the provision for scientific teaching in Glasgow, and its requirements?—Yes.

10,250. You have no reason, I suppose, to change any of the opinions or statements you then made?—Not so far as I recollect them.

10,251. And you would have no objection to hold them to be part of your evidence before this Commission?—No.

10,252. Upon the subject of extra-mural teaching in the Faculty of Arts, do you think that should be encouraged in any way?—I do not see how it could be done with advantage.

10,253. It is advocated by many people upon the ground that it would stimulate the professors in their teaching to have a rivalry of that sort, and, when a professor from any reason should be somewhat inefficient, the students would have the benefit of resorting to a more efficient teacher for a time. What is your opinion with regard to that?—I do not think that in the Faculty of Arts it could work in that way,—in the same way as it does in the Faculty of Medicine.

10,254. Would you give us your reasons for that?—I do not see where we could expect to have the teachers forthcoming to effectively supplement the teaching of a Professor of Logic or Moral Philosophy, or, I may say, of Natural Philosophy,—in short, of any of the classes in the Faculty of Arts.

10,255. *Dr. Muir.*—Are there not corresponding classes in the Andersonian Institution in Glasgow?—There are in the medical departments. A definite demand for professional education in medicine produces a

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supply of qualified teachers, and that supply is also rendered possible by the fact of there being so many young medical men of capacity working their way up who are very glad to take a lectureship in the Andersonian Institution, but there would be no such corresponding provision ready to supply teachers of natural philosophy or moral philosophy, or Latin or Greek.

10,256. But are there not teachers of chemistry or natural philosophy in that institution now?—Yes; and I should say that in my own department there would be more possibility of getting supplemental teaching than in some of the other departments. In the chemical department there certainly have been very able men in the Andersonian Institution; that is part of the Medical Faculty.

10,257. *The Chairman*.—A great many medical men take to teaching for the purpose of advancing themselves in their professional practice?—Yes.

10,258. But a teacher of Latin or Greek, or logic or moral philosophy, or mathematics, would have no such object in view?—No, I think not.

10,259. And not the same inducement, therefore, to undertake teaching?—No.

10,260. *Mr. Campbell*.—You mentioned that your predecessor in the natural philosophy chair was for several years in such a state of health that he was unable to attend to his duties, and that the apparatus belonging to the class was allowed to go down in condition. Was there a time, then, when extra-mural teaching in natural philosophy might have been of some consequence to the students?—There was no extra-mural teaching in natural philosophy to be obtained which would have been better than that which was obtained from the assistants of the Professor of Natural Philosophy. There was great difficulty in getting good assistants, but undoubtedly they gave better teaching than it would have been possible to give by any extra-mural system. The system of retiring allowances did not exist then, and the difficulty frequently occurred of a professor being incapacitated, and, it being necessary to go on, that his class should be conducted for many years by assistants. These assistants could not manage such parts of the business as keeping the apparatus in order; they did not attend to such things; and if the professor was incapacitated such business was neglected. The teaching of the class was not neglected, however, and it was done very efficiently by the assistants of Dr. Meikleham. One of the most efficient teachers in Aberdeen University is Professor David Thomson,—a man who has had a part in making more senior wranglers than any other professor in a Scotch University, except his colleague Professor Fuller, and he was assistant to Dr. Meikleham during a great part of the time when Dr. Meikleham was from bad health unable to teach. I think that, with a staff of assistants such as I have recommended in my own department, and with corresponding improvements in the other departments, the University ought to be able to do far more, and would, with proper economy of resources, be able to do far more in the way of teaching in any of the departments in the Faculty of Arts than could possibly be got without a very wasteful expenditure in a separate extra-mural institution or by private extra-mural teachers.

10,261. Are there any other points on which you have any suggestions to offer?—On the subject of emoluments and retiring allowances, I think that either an explanation or a change of the present regulations is required. We had experience of that in the University Court lately in connection with the retirement of a professor. It was held necessary that there should be a certificate to the effect that his health was such as to

incapacitate him permanently from teaching before his resignation could be accepted, and such a certificate was actually given. Now it seems to me that no such certificate should be asked for or accepted, but that the mere fact of wishing to retire ought to suffice when a professor has passed a certain age.

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10,262. What age would you assign?—I believe the age in corresponding regulations in the civil service is sixty, and I should think that that would be a proper age in connection with professorships. It may be that the law is so at present that a professor has a right to retire without a certificate of incompetency at the age of sixty, but I think the wording of the regulation is not quite clear, and I know as a fact that such a certificate has been asked for and accepted, or, at all events, that evidence to that effect has been considered necessary. Now I think that matter should be made perfectly free. I think it should be considered that a man who has served a certain time, and reached a certain age, has earned a right to retire, even although he has the possibility of twenty or thirty years' more work in him. I believe it would be for the benefit of the University itself to render it easy for the professors to retire at a certain age, because, even with the very best men, the difficulty will often be to persuade them to retire. I think it will be more difficult to persuade a man to retire when he ought to retire, than to prevent him from retiring when he is anxious to retire, but ought not to retire. I think that if a man has taught for thirty years, and is sixty years of age, it is more than probable that it would be good for the University that he should retire.

10,263. In short, you think that the facilities for retiring are not sufficient?—Yes; and I think that something like the Russian system might be adopted with advantage. The Russian system is this—when a man has served thirty years he is bound to retire on full pay, unless he is specially requested to continue, and consents to continue, at double pay. That, I think, is the right system. The retirement at full pay is rather an important principle, because if to retire involves a considerable loss of income, there would be that motive against retirement which I think ought not to exist; and therefore I think it should always be retirement on full pay. This is perhaps rather a revolutionary proposal, considering how thoroughly the system of retiring at a diminished allowance pervades all our institutions; but I think that not merely with regard to professorships, but in other institutions, the Russian system might be followed with some advantage to the public.

10,264. The question has been raised as to whether it would not be desirable that the Principal should not only do some work in the way of teaching, but whether he should not be one of the professors. Have you any opinion to offer on that subject?—Yes; I am very decidedly of opinion that the Principal ought not to be one of the professors, and that he ought not to be required to teach. He may be allowed to teach, but it should be a voluntary matter altogether.

10,265. What are your reasons for that opinion?—I think the duties of the Principalship are quite sufficient for one man, especially in the University of Glasgow or the University of Edinburgh. In a smaller University it may possibly be that there is not so much University business to conduct, and that the duties are not sufficient for one man; but there are many things that no one professor could have time to do, and yet which must be done for the University. There is a great deal of correspondence to be carried on. It is not desirable that all the correspondence should be performed by the clerk of the Senate. It is desirable that much of it should be done by the Principal, speaking in name

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of the University; and to do that in a manner suitable to the University requires a man of high capacity, and knowledge, and education; and it is likely to occupy a very large part of his time, if it is well done. Then he has the duty of presiding at the meetings, and being a member of the committees. Every great undertaking requires a chairman, and the chairman generally has no sinecure of it, if there is much work to be done, and if he does his duty properly.

10,266. Don't you think that his influence and weight as chairman of the Senate arises a great deal from the circumstance of his not being a professor?—Undoubtedly.

10,267. In short, he has no interest as a professor that can come into collision with any other in the Senate?—No; and, generally, I think it would be very undesirable that one of the professors should be Principal.

10,268. You are aware that the corresponding office in some of the German Universities is conferred upon a professor, and that the election is annual?—The Rector of the University, I believe, is appointed in that manner.

10,269. And he has substantially the same office as the Principal with us?—Yes.

10,270. You don't approve of that?—Not at all. I must say that I think it would be exceedingly injurious to any chair for the incumbent of it to be appointed Principal for a year. If he does his duty as Principal, he cannot do his duty to his chair.

10,270*. And it would also be injurious, you think, to the office of Principal?—Yes.

10,271. You are quite of opinion, I understand, that the work of the Principal is sufficient to occupy the time of any one man?—Certainly it is.

10,272. And you look upon the work of that office as being very important for the interests of the University?—Very important indeed.

10,273. Have you any observation to make as to the financial position of the University of Glasgow?—Funds for keeping up the buildings are quite necessary. I do not speak of the necessity for finishing the buildings—that is an object of very great importance; but, even supposing the buildings were finished, we want something permanent in the way of funds for keeping the buildings in order. The present University funds of the University of Glasgow are altogether inadequate for that purpose. I think also there ought to be funds for such special purposes as I have already indicated; for instance, to allow applications to be granted occasionally, when proper reason is shown, for the purchase of additional apparatus. I think there ought certainly to be a very considerable addition to the funds of the University of Glasgow; in order to secure the keeping up of the buildings properly, and to allow a small margin, such as the University of Glasgow always had in the old time for special application to any department of the work of the University. At present, if a professor finds some particular arrangement of light or of benches necessary, or that some mechanical appliance is required in connection with his lectures, there are absolutely no funds with which these can be provided.

10,274. Would you think it more desirable that the Government should undertake the maintenance of the buildings through the department of the Board of Works, or that an annual grant should be made to the University for that purpose?—I think it would be more desirable that the Government should undertake the maintenance of the buildings.

10,275. Then your desire for the grant that you have now been speaking of would be limited to the provision of those minor things that you have

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enumerated?—Yes; so that the University might have some funds to vote for special purposes that may occur from time to time. I gave one example from my own department; but I believe every professor could give examples of the same kind from his department. My department requires more apparatus than any other except chemistry and some of the other scientific departments, but there is something of apparatus required in every department; and, besides, there is the possibility of modifications being required from time to time in the class-rooms, and also the general expenses of the University, for which at present there is no sufficient provision.

10,276. *Mr. Campbell.*—The old College buildings in High Street were maintained by the University funds?—Yes.

10,277. But the cost of maintaining the present very much more extensive buildings would be very considerably greater?—Very much greater.

10,278. That has not been so much felt within the last few years, because, the buildings being new, there were comparatively few repairs required?—Yes; and until very recently everything has come upon the building fund, the building not being finished, so that the great debt we have unfortunately upon us with respect to the building includes partly some of the keeping-up expenses of these three or four years. There can be no doubt, however, that supposing we had the buildings completed, and all the debt upon them paid off, a very much larger annual expenditure would be required to keep them in order than was required for the old University buildings. Then, with respect to the University funds generally, it must be remembered that the number of professorships has been very much augmented within the last forty years, and that there has been no corresponding addition to the University funds. In the old question between the Faculty of the College of Glasgow and the Crown, part of that question always was—How was a new professor to be provided with a lecture-room and with appliances for teaching? New professorships were instituted from time to time by the Crown, and no addition to the University funds was made to provide the new professor even with a lecture-room; and thus the College and University funds became burdened from year to year with additional burdens, and there was no corresponding addition of property. For a certain time the funds under the management of the Faculty of Glasgow College had a surplus from year to year, and that surplus sufficed for some of the calls upon it; but there was no regular provision made, and thus such new professorships as Engineering and others have added to the ordinary expenditure of the University without there having been any addition of funds to correspond.

10,279. *Dr. Muir.*—Could you expect the Government to supply you with a fund to be applied for undefined objects and *ad libitum* for the University?—No, I could not expect that; but there should be a relief of the University funds from the burden of maintaining the buildings. Not only the great expense of the new buildings, but the greatly increased number of professorships, requires the funds to be increased, in order to support the buildings accommodating the professors and the students. I think the principle should be laid down that if in future a new professorship is instituted, there should be a contribution to the University funds such as will cover all the additional expenses involved in that new professorship, instead of merely giving the new professorship a salary, and leaving the University to find the lecture-room and to defray whatever expenses may occur.

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10,280. *Mr. Campbell Swinton.*—You are minister of the parish of Balmerino, in the county of Fife?—I am.

10,281. You are an M.A. of the University of St. Andrews?—Yes.

10,282. And is your degree of D.D. also from that University?—Yes.

10,283. As a member of the General Council, have you taken a considerable interest in the proceedings of that body, and of the University generally?—Yes; I have attended the meetings of the General Council pretty often.

10,284. Have you any opinion to give to us as to the constitution and powers of the University Court?—Yes. The feeling, I think, on the part of all the members of the General Council of St. Andrews is that the representation of the Council in the University Court should be increased.

10,285. To what extent?—To two or three members. Of course, if there were three members, the whole number composing the Court would require to be increased beyond what it is at present.

10,286. Even although there were only to be two, the number would require to be increased, unless you eliminated some?—Yes. I think that about one-third of the whole number should be from the General Council.

10,287. Can you give any special reason why the Council should have a larger share of representation than any of the other elements which constitute the University?—Perhaps the Council, representing as it does all the past students who have left the University, has a greater interest as a body in the prosperity of the University than any of the other elements.

10,288. But can the meetings of the General Council be said really to represent the past students as a body?—At present the meetings at St. Andrews (and I speak principally of St. Andrews, with which alone I am well acquainted) are in many cases very thinly attended. That, I believe, is perhaps not altogether but in a great measure owing to the fact that the Council, from having only one member in the University Court, has so little influence in University affairs that many of the members of Council who live at a distance consider that it is little better than an institution for talking about things, and that it is of no use to attend its meetings.

10,289. And you think, if they had a larger representation, they would attend in greater numbers?—Decidedly.

10,290. And would come even considerable distances to attend?—Yes, I think so.

10,291. You mean, I suppose, that you would make the representation of the General Council in the University Court to consist of two or three members in all?—Yes.

10,292. Is there any other suggestion you have to make on that subject?—I think it would be well if all the proceedings of the University Court were regularly laid before the Council.

10,293. Does your University Court not do what is done by the Edinburgh University Court—publish in the newspapers after every meeting an abstract of what has been done at the meeting?—No.

10,294. Does the Calendar not contain an abstract of the proceedings for the year?—My impression is that it does not; but I do not speak very decidedly on that point.

10,295. Do you think it would be an improvement if that were done?—Yes. I think anything that increases the interest of the General

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Council in the affairs of the University is an improvement; and any means of opening up more regular communication between the two bodies—the Court and the Council—would increase that interest.

10,296. Are there any other additional powers or privileges that you would give the Council, with the same object of increasing the interest of its members in the University?—I have not considered any other point specially in connection with that object.

10,297. Then you are content with the present functions of the General Council, or would you give the Council any additional powers?—I think the General Council should have power to call extraordinary meetings—meetings other than the statutory meetings—when any emergency arises, or when anything occurs requiring immediate attention.

10,298. Has any inconvenience occurred in any case that you are aware of from their not having that power?—I am not able to specify distinct cases.

10,299. But you think there might be such cases?—Yes, I think there might; and the absence of such a power gives the functions of the Council an inflexible aspect, as if it were not capable of taking action as occasion may require. I think also that the Council should have power to act through committees.

10,300. With regard, first, to these extraordinary meetings, would you require a requisition to be signed by a certain number of members?—Yes. I am not prepared to go much into details, but that would be a very good way of proceeding. There should be a requisition signed by a certain number of members, and that not a very small number, because I don't think it would be well that a meeting should be called for any trifling thing.

10,301. How many would you suggest?—Perhaps a dozen; certainly not less than a dozen.

10,302. And they should address a requisition to the Vice-Chancellor or some such authority, who in such a case should be bound to call a meeting?—Yes, some course such as that might be adopted. Perhaps it might be well to give the Vice-Chancellor, or the person to whom the requisition is addressed, power to exercise a veto over the calling of the meeting. I should be very unwilling to put it in the power of any ten or twelve members to call a meeting of Council.

10,303. *Mr. Campbell.*—Would you not entrust that veto to the Court?—If the Court included at least three members from the General Council, I think that would be a very good plan, but not with the Court constituted as at present.

10,304. *Mr. Campbell Swinton.*—With regard to these three members of the General Council who should sit in the Court, would you have them all elected by a simple vote; or, as there would be three of them, would you give the minority any representation in order to prevent one class of views only being represented?—I think it would be a very good plan to have a three-cornered constituency, as in certain towns returning three members of Parliament, such as Glasgow.

10,305. What suggestion have you to make with regard to the General Council acting through committees?—The Council at present acts partly through committees, but this is considered to be rather unauthorized, and I would suggest that in any legislation there should be a distinct recognition of the power of the Council to appoint committees, and to act through them.

10,306. What do you mean exactly by the Council acting through committees? Do you mean that it should delegate its functions to a committee for a particular purpose, or only that it should appoint a com-

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mittee to carry out some definite decision to which it has already come? —I mean something of the latter kind. I would not propose to delegate its original functions, properly speaking, to any committee; but there are certain things that can be done better by a committee, and particularly by a committee sitting between the meetings of Council, so that things should not take an entire stoppage from one meeting of Council to another, but should be carried on and brought to a conclusion.

10,307. You say that to a certain extent that has already been done? —It has been done to a very slight extent.

10,308. But you think there may be some doubt as to the legality of it?—Yes.

10,309. Do you think it is expedient that any new faculties or degrees should be instituted in the Universities?—I am not prepared to say.

10,310. Or that there should be a revival of any old one?—I am instructed by the General Council of St. Andrews to appear here for the purpose of representing the propriety of reviving the degree of B.A.

10,311. Does your own view on that point concur with the opinion of those whom you represent?—Yes.

10,312. What advantage do you anticipate from that?—I am only authorized by the Council to suggest that it should be revived. The reasons for it that I am about to state are my own; the Council are not committed by anything I say. I think that if the degree of B.A. were revived, it might be taken by those who were to become teachers. It might be joined on to the scholastic profession, and it might be made a requisite for a teaching diploma that every one desiring it should have that degree. In that case I would make the degree of B.A. not so difficult to obtain as the old degree of B.A. was.

10,313. What curriculum would you require for it?—At least two sessions. I would not confine it to classical learning entirely, but I would allow a considerable diversity of study, so that a person might choose certain classes.

10,314. Would you allow a man to take a degree of B.A. who knew no classics at all?—No.

10,315. Then you would only have two sessions, and yet you would not confine him to classics?—When I say two sessions, I am thinking of the present regulation by which the students beginning their course can enter the second year's classes on passing an examination. Without that I would have three years.

10,316. So that it would be only one year short of the present curriculum in either case?—Yes; and that, I think, would be a good thing. It would give a University character to a teacher if he had that degree; and many teachers, who might be unable or unwilling to attend three or four sessions to take their M.A. degree, might be willing and able to take the degree of B.A.

10,317. While you say you would allow considerable latitude in the subjects, are there any subjects or any classes which you would make compulsory for that degree?—I think Latin and Greek must always be the principal part of the curriculum for such a degree,—certainly Latin. Perhaps for a teacher, Greek is less necessary; and by a teacher, I mean a teacher of a public school. That is the class of men I have in my eye, and not those in higher institutions. What I mean is, that if a young man who intends to be a teacher, instead of going to the Normal School only, where he meets with none but those who are following the same profession, which induces a narrowness of mind that I think does harm to him afterwards, went to the University for two or three sessions, and mixed with men intending to go to various professions and various

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employments, it would do him much good in the way of enlarging and liberalizing his mind. I think a degree of B.A. would be the proper mark to show that he had attended such a course with credit to himself; and if to this were added some practice in the art of teaching, to be got at the Normal School or otherwise, that would, in my opinion, be a very good foundation for a teacher's diploma.

10,318. Would a certificate of some kind granted by the University not serve the same purpose as the degree?—It would be a mere difference in words.

10,319. But are there not some reasons why you should not look to the matter of words in such a case? Would there not be some disadvantage in designating by the title of B.A. a position in point of acquirements which would be so very much lower than what the same letters designate, say in England?—I would not make it lower.

10,320. But if a student were only attending two years at the University, would he not have a far less amount of culture than a man who has taken a B.A. degree at an English University? And therefore, if you called a man a B.A. who had attended for these two sessions, and he went into the world alongside of a B.A. from England, would not that have the effect of lowering the value of Scotch degrees in the eye of the public?—I am not well qualified to speak to the value of an English B.A., but my impression is that it is not so very high after all.

10,321. Whether it is exactly the same or not, it occupies the same position that our M.A. does?—I am not sure of that.

10,322. I don't say whether the acquirement is the same; but you are aware that their B.A. has to go through the same testing examination that our M.A. requires in point of time?—Yes, I am aware of that.

10,323. If that is so, if confusion may arise between the English and Scotch B.A.s, and therefore lead to a depreciation in Scotch degrees, don't you think that a certificate granted by the University to intending schoolmasters would on that ground be a preferable thing?—The same object might be accomplished by calling the degree by some other name, instead of B.A.; but I would have it something which a man could put after his name.

10,324. To revert to your original proposal of reviving the degree of B.A., don't you think the effect of that would be to make a man satisfied with having got a University distinction, and therefore fail to go on to the M.A.?—No. My proposal would only apply to those who from want of time or from want of means, or other circumstances, were not able to go on to M.A.

10,325. Would you attach electoral, I mean either University or political privileges to a B.A.?—I would not.

10,326. You would not make him a member of the General Council?—No.

10,327. What is your opinion as to the expediency of introducing entrance examinations?—I am of opinion that it would be an excellent rule if all students, with the exceptions I am about to specify, were obliged to pass an examination at their entrance, provided the examinations were made about as uniform as possible at the different Universities, which might be done by arrangement, and provided that in exceptional cases that rule should not be applied.

10,328. Exceptional on what ground?—Attending all our Scotch Universities, there are young men,—and I suppose that has always been the case,—who have come up to college fired with a desire to enter upon a course of learning, and to study for the Church or for some other pro-

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fession, who are poor, and who have had very little previous preparation, but who have good intellect and indomitable perseverance. Such persons have often turned out amongst our ablest men, and any rule excluding them would be a great evil to the country as well as to all our working population. At the same time, it is an evil at present that students do enter our Scotch Universities with so little learning, especially with so little Greek.

10,329. Would it be in respect of more advanced age that you would make the exception?—Yes; and the student might be allowed to pass this examination, say at the end of his first session instead of at the beginning, and so let it be seen if there is anything in him, and if he has made any good progress.

10,330. You would have the doors of the University open at the commencement, but at the end of the first session you would have such young men who have gone through the first year's course undergo the same examination that those who are coming for the first time to the University for the three years' course would undergo?—Precisely; that is to say, all should be examined at their entrance, except those who from exceptional circumstances should have the privilege of deferring their examination till the end of the first session.

10,331. But would there be any great object in examining all the others at the entrance, if you allow these to lie over till the end?—The privilege given to a young man to pass his examination at the end of the first session would require to be limited in some way. I am not prepared to say how that could be carried out, but I think it could be very safely left in the professors' hands.

10,332. *Dr. Muir.*—For the general run of students would you have an entrance examination at the beginning of the first session?—Yes.

10,333. And another at the entrance to the second?—No; I don't think so, but I have not considered that. I am confining myself at present to the question whether there should be an entrance examination, so as to raise the standard of University education on the whole.

10,334. Would you make it high?—No, not too high, but I am not prepared to say what it should be.

10,335. *Mr. Campbell Swinton.*—What I understand is, that you would have a general entrance examination, and it is only those who fail to pass it that you would subject to another examination at the end of the first or the beginning of the second session?—Yes.

10,336. Either those who fail to pass, or those who, upon some principle that you have not yet clearly defined, would not likely be able to pass?—I should hesitate to allow any of the common run of students who have been rejected at the entrance examination to be examined again during the same session. The best thing for them would be to go back to school and return at the commencement of the following session; but if a man, say of considerable age and of straitened means, and with other disadvantages, presents himself, and shows signs of capacity, the rule should be relaxed in his favour.

10,337. Then the relaxing that you would propose of the rule would be confined to those who, while fired with academic ambition, were too old to be sent back to school?—Yes.

10,338. *The Chairman.*—Would there be any great objection to putting all the students on the same footing, and examining them all at the end of the first year?—I think that method would not have the same effect of making intending students work up and prepare. If a student who is very deficient knows that he has still six months in which to work up before he is examined, he will be inclined to delay; and I

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don't think that plan would raise the general tone of University education. The great thing is to have that preparation done at school; and in order to obtain that, I think it is important to let the students understand that if one is plucked, he shall not be allowed to enter at all until the following year. I think that would be a salutary terror to hold over intending students. As an illustration of what I have said as to students of considerable age coming to college, I may mention that there is a young man with whom I am acquainted who is at present at the University, and who went to college when he was about twenty-two. He desired to study for the Church. He had no Latin or Greek; but he had a good general education, and a good intellect. When he went to college he was not in either the Latin or Greek classes the first year. He took English literature, I think, and mathematics, and he worked away privately at Latin and Greek in the meantime, so that he was able in the following year to attend these classes. He has made a very respectable appearance in his classes, and in some of them he has done extremely well. He is still at college. Now I think it would be a great hardship and a great evil if such a young man were prevented from entering college.

10,339. *Dr. Muir.*—The system at present prevails that a man who passes a certain examination at the beginning of the second session, or who goes to college and passes a certain entrance examination, enters at once upon the second year's course, and can complete the curriculum in three years. You don't approve of that, apparently?—What I propose is not opposed to that, only I think that examination would require to be proportionately higher. If you insist upon all men being examined at their entrance, and if you allow men who are better qualified than the common run to pass over a session, you must insist upon examining them on a much higher standard.

10,340. *The Chairman.*—Are you in favour of making any change on the sessions of the Universities?—I think it is an evil that the session at present is divided so unequally by the Christmas holidays. About six weeks or less after the student has well begun his classes he gets away for about a fortnight, and then there is a very long time between his return and the end of the session. Every student who applies himself feels the work pretty hard before the end. I think it would be better if the Christmas holidays were extended to three weeks, and the session were made to commence at the beginning of October, and to end about the middle of April, so that the Christmas holidays would divide the session into two equal parts, or thereabout. That would, of course, necessitate the extension of the Christmas holidays to a little beyond what they are at present; and it would make two terms of about three months each, divided by a vacation of about three weeks.

10,341. Why should that necessitate an extension of the holidays?—I think the Christmas holidays would be too short. They are not too short in the present position of the session; they are perhaps too long now, because only six weeks after the student has commenced his work he gets away; but if you make him work three months before getting his holidays, then I think you should give him three weeks.

10,342. Is there no difficulty with regard to the poorer students in extending the Christmas holidays? What are they to make of them?—No doubt there is a little difficulty there. I daresay most of them would remain at the University town.

10,343. And then they would be spending money without any return?—Yes, I admit that is rather an objection.

10,344. They cannot afford idleness, even for three weeks?—No.

10,344*.—Perhaps some compromise there would be desirable?—I

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think so. I have always thought the present arrangement was an evil. I remember, when I was at college myself, thinking it was a very unwise arrangement that we should get away so soon after commencing, and that there should be such a very long time without a break after that.

10,345. *Mr. Campbell.*—When does the session open?—In the first week of November.

10,346. *Mr. Campbell Swinton.*—Was it never the custom in St. Andrews to open earlier?—I am not aware—not for a long time at least—not under the present system.

10,347. *Mr. Campbell.*—When does the session close?—In the United College the classes close about the last week in April. In St. Mary's the classes close several weeks earlier, in the end of March, and they don't meet so early as in the United College. The divinity session at St. Andrews is only about four and a half months from beginning to end, including the Christmas holidays; and with regard to the session at St. Mary's, St. Andrews, it is still more absurd to have holidays so very soon, because the classes do not meet for some weeks after the other, and the work is scarcely begun when the students are sent away again.

10,348. That is the only change you would suggest with regard to the sessions at the Universities?—Yes; that is the only thing I have considered.

10,349. Have you anything to suggest regarding the financial arrangements of the University of St. Andrews?—I think it would increase the interest of the members of the General Council in the prosperity of the University, if as much information as possible were communicated to the Council regarding its affairs; and as all our Scotch Universities are very much in want of money, old students who are members of Council would be encouraged to take a greater interest, and perhaps to give money, if they really knew more of what was needed.

10,350. What do you wish should be done in that way?—I would propose that a statement of the whole revenues of each University, including salaries and fees, should be annually laid before the General Council, and also a statement of the expenditure of the University funds.

10,351. Is there not some statement of that kind published annually in the Calendar?—Not in St. Andrews. Of course, if one wades through the reports of the previous Royal Commissions, he may find out something about the revenues, but the greater number of the members of Council know little about either the emoluments of the professors or the revenues. The colleges in St. Andrews have considerable revenues. All these things should be published for the information of the members of the University; there should be nothing private about them. The Universities are national institutions, and there is no reason why there should be any secrecy on the subject. Then, again, in St. Andrews, as you are aware, the University as such is a corporation different from both of the colleges; and an account of the income and expenditure of the University funds as such ought also to be published.

10,352. I wish to ask your attention to the fact that there are such statements published every year in the Edinburgh Calendar, and I believe also in Glasgow. It is something of that kind that you want in St. Andrews?—Yes. I think that such a publication would increase the interest of the old students in the University, and would perhaps tend to their leaving money by legacy or otherwise for the good of the college. In St. Andrews there is the more propriety in publishing these things, because the colleges have considerable landed estates, and there is a great deal that it might be interesting to know about the way in which they are managed.

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10,353. Then I think you have some statement to make about libraries?—Yes; and with regard to this I am speaking again of St. Andrews, with which I am best acquainted. The number of students at St. Andrews is not very large, and it appears that comparatively few of the books in the library there, which is a very excellent library, are at all read or ever taken out of the library. The members of Council are allowed the use of only four volumes at a time. Now I think that each member ought to be allowed the use of at least six volumes, and also that at least one member of the library committee should be chosen by the General Council.

10,354. What do you mean by the library committee?—In St. Andrews there is a committee of *Senatus* called the Library Committee, and I think one of its members should be chosen by the General Council from among those of its own members who are not members of *Senatus*.

10,355. You mean that a person selected by the General Council should be added to the Committee of *Senatus*?—Yes, that is what I mean. I think, also, that the catalogue of the University library should be printed and sold. The only printed catalogue at St. Andrews is a thing made about forty or fifty years ago,—a single volume, and it does not contain one-tenth of the books, so that when one goes into the library he does not know what to ask for. If you are interested in any subject or following out any subject of investigation, you wish to know what books there are in the library on that subject; but there are no means of finding that out. There is a manuscript catalogue, which of course is not accessible to readers in general, so that really the library is practically useless from the want of a catalogue. I am aware that the reason why there is no printed catalogue is the want of funds. I believe it would take £1000 to print one.

10,356. Have you ever turned your attention particularly to the question as to the utility and expense of printing a catalogue of such a library?—I am aware that the expense would be very great.

10,357. Are you also aware that its usefulness is not so great as at first sight appears?—I would be prepared to believe that.

10,358. There are additions to the library being made every year?—Yes.

10,359. How would you provide for them being added?—I would print a statement perhaps once in four or five years containing the recent books, without attempting to incorporate them with the previous catalogue; but I think there ought to be once in print a list of all the books in the library.

10,360. *Mr. Campbell Swinton*.—Is it to the members of the General Council that that would be useful?—Yes, and to the students, and also to the professors themselves.

10,361. Would it not be a very natural thing for the General Council to get up a subscription to print the catalogue?—It would be a very large undertaking, but I think it would be a very proper object for the Government to pay for. The St. Andrews library gets £600 or £700 a year with which to purchase books, and if many of these books are useless, as we hold they are, in consequence of the want of a catalogue, it would be a proper thing for the Government to provide funds for printing a catalogue. The books are practically useless to a great number of the readers. To the professors, of course, they are not useless, because they can walk through the whole library and get access to the manuscript catalogue, but this catalogue is not patent to the other readers.

10,362. But would not the Government be very apt to say that, con-

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sidering that the St. Andrews library gets more in the shape of a gift than any other, it ought to be able to afford to print its own catalogue?—Yes; but I think the terms of the grant are that the money must be expended in the purchase of books. I believe the Senatus are obliged to furnish a list of the books which they purchase and their prices to the Exchequer.

10,363. *Dr. Muir*.—If a man wants any particular book from the library, can he not find whether or not the book is in the library on inquiry?—Yes; but I want to know what books there are in the library on any particular subject.

10,364. *The Chairman*.—You would require a *catalogue raisonnée* to give you that?—Yes; in order to get such information that would be the best way, but an ordinary catalogue would be very useful.

10,365. *Dr. Muir*.—Do the members of the General Council pay anything at present for the use of the library?—They pay 10s. 6d. a year or five guineas once for all. If each member were allowed the use of six volumes, and if there was a proper catalogue of the library, I think it would be quite fair that those who read should pay more than 10s. 6d. I would have no objection to that so far as I am concerned, and I think that any one who values the privilege would be quite willing to pay more.

10,366. *The Chairman*.—Have you any idea how many members of the General Council avail themselves of the privilege of this library?—Very few at present, owing, I believe, very much to the want of a proper catalogue. Another point I wish to state is, what I believe has been already laid before you, that it would be very desirable that all the members of any General Council of a Scotch University were allowed to read from the University library nearest to them,—that is to say, supposing an Edinburgh student should be living in St. Andrews, or a member of the General Council of Edinburgh living in St. Andrews, or *vice versa*, he should be allowed to read out of the library nearest to him.

10,367. Do you not think that would bear much more hardly on some libraries than on others?—I am aware it would. It would be harder upon Edinburgh, and upon Glasgow too.

10,368. *Mr. Campbell*.—Are the members of the St. Andrews University less favourably situated with regard to their library than the members of other General Councils?—I am not aware they are; but I do not know to what extent catalogues, or parts of catalogues, may be printed for use in other University libraries.

10,369. *The Chairman*.—Is there any other point to which you wish to direct our attention?—I think not. I may say that I was requested to come here by the General Council of the University. I did not come impelled to offer my own opinions to the Commission, but the General Council wished me to attend and state their desire that the degree of B.A. should be restored.

Adjourned.

FRIDAY, 9th February 1877—(Fifty-Seventh Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

Rev. Professor MILLIGAN, D.D., examined.

10,370. *The Chairman.*—You are Professor of Divinity and Biblical Criticism in Aberdeen University?—Yes.

10,371. And you have been so since 1860?—Yes.

10,372. Aberdeen University is not, I believe, the University at which you were educated?—I was educated in my Arts course, and part of my Divinity course, at St. Andrews; and in the remaining part of the Divinity course in Edinburgh.

10,373. And from what University do you hold the degree of Doctor of Divinity?—St. Andrews.

10,374. You are well acquainted, of course, with the curriculum and regulations for graduation both in Arts and Divinity, as they stand in Aberdeen?—I have had occasion, of course, to look a good deal into both subjects, but more naturally into Divinity than into Arts.

10,375. With regard to graduation in Arts, have you anything to suggest in regard to the present curriculum for graduation, or any of the conditions on which the degree is conferred?—The point of chief interest to me in connection with that is that I should rather dislike the institution of any new degree in Arts. With regard to graduation in the Faculty of Arts, as you are aware, there is a strong desire on the part of many to institute a new degree of a lower kind than the present, which may be conferred on men who have studied say two or three years but who have not gone through the complete curriculum. I am afraid that the effect of the institution of any new degree would be to bring the higher degree down to its level. And I am also not quite satisfied that there is any real call for bestowing a new degree upon those who do not choose to send their sons, when they are able to send them, through the curriculum as it stands.

10,376. Are you disposed to recommend any change in the subjects of study in the Faculty of Arts with a view to graduation?—Of course it is a very interesting, but a very difficult question to know whether you might try a system of bifurcation; whether, supposing that only one degree was given, you would confer it simply on the present curriculum, or appoint a curriculum which should have a twofold course, or a threefold one, as the case might be—each of these branches terminating in the M.A. degree. I feel a good deal of difficulty in pronouncing with any degree of confidence on that point. The feeling I have is this, that if you can institute any branch course which shall involve a similar amount of study, of mental culture and attainment, to that of the present curriculum, then I should certainly be willing to accept of such a course. I feel, however, that it is extremely difficult to do so. There are only two subjects, so far as I am aware, which are spoken of in connection with a new course of that kind. The one is modern languages as a substitute for Greek, and the other is physical science as a substitute for Greek.

10,377. *Dr. Muir.*—Has nobody proposed to substitute anything

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for mathematics, which many young men cannot master?—I have not heard a serious proposal to substitute anything for mathematics. You would find great difficulty in excluding mathematics from any curriculum which was to terminate in a degree.

10,378. *Mr. Campbell Swinton.*—You don't think, do you, that logic can be at all taken in place of mathematics?—It already exists.

10,379. But suppose it as an alternative course?—I should be extremely unwilling that any lad getting a liberal education to terminate in a degree should be stamped by a degree, and not have passed through a mathematical training.

10,380. *Dr. Muir.*—Do you think all minds are capable of mastering mathematics?—I don't think they are all capable of any of the branches of the curriculum in any high degree of perfection. Every mind will probably have some branch in which it will be more or less deficient; but I think that any lad properly educated, and paying proper attention to mathematical study, may master enough—all that is required for the M.A. degree.

10,381. *The Chairman.*—But suppose that the bifurcation of which you have spoken, or the choice of subjects, were not to commence until the student had gone through the senior classes of Latin, Greek, and mathematics, would you see the same difficulty?—No; because there he would then have the whole, or valuable portions, of the education he is now receiving.

10,382. Supposing a student to have passed through the senior classes of Latin, Greek, and mathematics, which of course involves that he has either attended the junior classes in these departments also, or has been led to omit them because of his greater proficiency, then would you see any objection to allow him to proceed to his degree by devoting himself to two or three subjects of the different departments; as, for example, mental philosophy, including metaphysics and logic, or alternatively the physical sciences or natural sciences?—I think not.

10,383. You are, of course, familiar with that sort of division of subjects in connection with honours?—I was just about to refer to that fact, that you have already recognised such a distinction as you speak of in the regulations in regard to honours.

10,384. And you would not see any harm in extending that principle?—I think not, at that age. I would see no harm in it, because it may be supposed that a lad, by the time he has passed through these classes, has reached an age at which a system of bifurcation may be allowed; what I fear is the introduction of a system of bifurcation too early.

10,385. But by the time he has passed through the senior classes of Latin, Greek, and mathematics, he may be trusted to choose his own departments afterwards, having acquired a sufficient amount of general culture, and having felt and experienced the strength and weakness of his own mental faculties?—I would, perhaps, require to ask an explanation before answering that. The curriculum of each University is not exactly the same. Do you mean that a man should then be allowed to proceed to his degree, for example, without having studied mental philosophy in any respect? In Aberdeen a man does not enter mental philosophy until he is finished with his Greek and Latin. Now, do you mean that after he is finished with his Greek and Latin, he might select mathematics without mental philosophy, or mental philosophy without the remaining portion of mathematics?

10,386. That is what I intended to suggest. Now what do you say to that?—I should be very loath that he should not be introduced to

the study of mental philosophy. I think a man ought to be introduced to the study of himself.

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10,387. Does not that rather destroy the possibility of bifurcation?—I think, on the footing of which you have spoken of it, as following the time when a man has gone through the senior classes of Greek and Latin, it does, to a large extent. If you are to introduce bifurcation, you must introduce it at an earlier point, by allowing something in place of senior Greek and Latin, or in place of Greek altogether.

10,388. You would begin it earlier, apparently, and then after the student had been allowed to select the subjects say in his second year, you would tie him down still to some compulsory subjects?—I think that the only form in which you could approach it would be to ask whether or not you would allow him to substitute some other branch for say either Greek altogether, or the higher departments of Greek, Latin, and mathematics. I would not give him the liberty of rejecting any subject coming later in the curriculum at present. I do not see how you could reject mathematics.

10,389. Then your allowance of choice would be very limited?—I can't say that I see my way very well to any allowance of choice. The feeling I have is this, that if you can fall upon anything as a substitute which will imply the same amount of mental culture and of strenuous exertion that exists at present with the curriculum we have, then, I think, I should not object to bifurcation. For instance, if you could substitute for Greek anything equally trying to a student, equally calculated to call forth his powers, I think I would be satisfied with one ancient language. But my difficulty lies in this, that I don't know what to substitute. I do not believe in the substitution either of modern languages or physical science.

10,390. The conclusion you have come to is that you would not allow Greek to be dispensed with?—The conclusion practically is that I would leave graduation very much as it is.

10,391. You find the difficulties of allowing selection so great?—Yes; while the students are at their present age, it is very difficult to allow any of them the power of selection.

10,392. Does it not depend on the extent to which his mind has been cultivated, rather than on his precise age?—The two go very much on the average, or, taking things roughly, together. I should, of course, allow what you say; but taking things roughly you generally find that men of a certain age have, on the whole, somewhat similar capacities, and that up to a certain age they are not capable of thoroughly judging for themselves.

10,393. Will you favour us with your views in regard to graduation in Divinity?—I am extremely doubtful whether the B.D. degree which has been introduced into each of our Universities is worthy of being continued. It does not appear to me that it is possible to give that degree on the footing which will make it the stamp of thorough theological attainment.

10,394. Do you think the standard is too low?—The standard is too low, and it will be extremely difficult to heighten it. A good many years ago in Aberdeen we were very much alive to that, and we made an endeavour to meet the difficulty in part, by making the students take the examination for the B.D. degree not at the close of their course, but at the beginning of the following session—the object being to give them the summer months at all events, during which to study still higher the subjects for the degree. We found that the moment the student left the college he was busy in preparation for licence; the

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moment he was licensed he got into practical work; and so men did not come forward to take the degree at all. We were compelled, therefore, to introduce the custom of giving the degree at the close of the session; and at the close of the Divinity student's curriculum, it is impossible that high theological attainments can have been reached—such attainments as, I think, should be marked by a degree. We tried another plan at Aberdeen. We wrote to the Divinity Professors in the three Universities, proposing that, in order to heighten the degree, we should have a common board of examination. We thought that that would obviate some of the difficulties in raising the standard, and enable us more effectually to bring it up to a high standard. But the other Universities refused to go along with us, and we were compelled to fall from that idea. It strikes me that the true signature for a man's having completed the ordinary curriculum is the professional signature of licence. That is his stamp for having gone through his curriculum in a fair average way. Therefore, if we institute a separate degree at all, it ought to mark high theological attainment. We have the D.D. in some degree to accomplish that purpose; and, practically, I do not see the possibility of making the B.D. degree, without very considerable changes in the examination, mark such attainments as would be justly called high. With a common board of examination we might do a great deal; but not while we are examining separately.

10,395. How do you think a common board would raise the standard?—In the first place, it is always a difficult thing for the professor, where his classes are not very large, to exercise the same strictness in examining and in judging papers as a stranger would do. There is a temptation to be easy, especially where he has some personal knowledge of the man. A stranger would be freed from that temptation.

10,396. *Mr. Campbell Swinton.*—But you have some strangers among the examiners, have you not?—We have none in Aberdeen. In Edinburgh they have them, and we have thought of having them.

10,397. Would not that remove your objection to a certain extent?—It would depend on the men appointed. If men were appointed of high standing who were not under the control of the professors themselves, then I should say it would largely obviate my objection; but there is great difficulty attending that, for if you appoint men of high standing, there is a slight danger of collision between them and the professors; and if you appoint young men, it ends in the professor really ruling the examination.

10,398. *The Chairman.*—Do you know whether that collision has occurred in the other faculties where the examiners consist partly of extra-mural examiners?—But these examiners are all younger men. When I spoke of men of high standing, I meant such men as the professors in the dissenting colleges. No men of that standing have been appointed as extra-mural examiners in any faculty.

10,399. Not in the Medical Faculty?—I am speaking only of the Divinity Faculties.

10,400. But my question referred to other faculties. Has there, in point of fact, been any such collision in those faculties as you apprehend would occur in the Theological Faculty if you introduced extra-mural examiners of high standing?—I am not aware of any. But, in the meantime, the B.D. degree does not seem to me to have sufficient meaning or import.

10,401. You think, in short, that it does not represent sufficiently high attainments?—Yes.

10,402. *Mr. Campbell Swinton.*—Have you had a good many can-

didates for the B.D. degree?—Every year we have several. I have been told, but I cannot vouch for it as a fact within my own knowledge, that one reason why the B.D. degree is sought is, that, under the present system of popular election to parishes, young men find it desirable to send their certificates down to these parishes with the letters B.D. after their name.

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10,403. Has the number of B.D.s increased since popular election became law?—There has not yet been time to determine that.

10,404. *Dr. Muir.*—Would it not be practicable to raise the standard by insisting that young men, if they wished the degree, must come up to it?—I do not apprehend that we can do that so long as one Divinity Faculty acts by itself. We tried it in Aberdeen in the way I have mentioned, and we were defeated. I have no hope of accomplishing that while our faculty acts by itself.

10,405. Did the other Divinity Faculties give any reasons for not agreeing to your proposal?—I don't remember that they did, except that they did not like it.

10,406. Were they afraid to centralize?—I cannot see why that should operate in a professional subject. I should be opposed to a central board in Arts, but, in a professional subject, it is entirely different. I do not see why, because one objects to a general board for Arts, therefore he may not be ready to accept a general board for a professional examination.

10,407. *The Chairman.*—Your degree of D.D. is entirely honorary, is it not?—Yes.

10,408. Do you think it should be otherwise?—No.

10,409. Have you considered the subject of entrance examinations with regard to the Faculty of Arts?—To some extent, I have thought of it. It is a very important point; it seems to me fundamental.

10,410. Would you be in favour of introducing entrance examinations?—It depends almost entirely upon what the ultimate object you propose to attain in the Universities is. In the first place, if you were to introduce an entrance examination at all, it ought to be made a thorough one and a reality. I think the introduction of such a real examination would so completely change the character of our whole University system that my conclusion is against it. People hardly know what they are asking when they ask for a stringent examination. It would exclude a very great number of young men who come up from the country as well as from the towns; and who, with a strong desire to take advantage of the benefits of a University education, do take advantage of them, and afterwards distinguish themselves. It would also destroy what, I think, is one great characteristic of our Scottish system, namely, the very large extent to which we are able to bring the benefits of it home to the population at large. We have, I believe, a much larger percentage of the population of Scotland taking the benefit of a University education—and that benefit is very great, I think—than any other country in the world. If you make an entrance examination a reality, I fear you will alter the whole character of our University system.

10,411. *Mr. Campbell Swinton.*—Then you don't look upon your present bursary competition in Aberdeen as being virtually an entrance examination—a strict examination?—In one respect it fulfils a part of the functions of an entrance examination—that is to say, it leads to a spirit of study, and to attainments probably higher than would be got for a long time by an entrance examination; but, on the other hand, it has no effect whatever in keeping back a lad who does not go into it.

10,412. *The Chairman.*—It excludes nobody?—No.

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10,413. *Mr. Campbell Swinton.*—Don't the vast majority, in point of fact, take part in the competition?—Yes, I think so; and it exercises a powerful influence over them.

10,414. *The Chairman.*—But the only deliverance on their examination is that they get a bursary, or they don't?—Yes; it has no influence on their right to enter the classes.

10,415. *Mr. Campbell Swinton.*—And its practical operation is what?—To send a great number of them back to their studies for another year, in order that they may take a bursary the following session.

10,416. *The Chairman.*—Suppose an entrance examination were instituted which should not be allowed to exclude anybody from the University, but should only be required as an absolute essential to a student commencing his curriculum for a degree; what would you say to that?—That would, of course, obviate partly some of the difficulties I have mentioned; but might it not introduce a rather invidious distinction into two classes of the students attending a professor?—one that had passed an examination and one that had not. Then one object, as I understand it, of the desire for an entrance examination is that the professor may be able to make his teaching high, that he may not be burdened in his class with the presence of men who have made little progress before they came to him. It would not meet that difficulty.

10,417. Suppose you were to put the entrance examination in the place of the examination which at present qualifies a student to enter the senior classes of Latin, Greek, and mathematics without having passed through the junior; and that everybody going on for a degree, whether he comes from the junior classes or comes direct from school, should be obliged to pass that entrance examination as a condition of his going into the senior classes and proceeding to the degree; what would you say to that?—Wherein lies the difference between that and the ordinary examination except in this, that it is not imperative on all to pass it, but only on those who go on to the degree?

10,418. It would obviate one of the difficulties you have suggested of having young men of unequal attainments—some able to pass an examination and some not—attending the same class?—Yes; but would it not exclude too many who would not come up to that standard?

10,419. It would send them to the junior classes instead of to the senior. I mean that the entrance examination I allude to should come in the place now occupied by the existing examination to enable a student to pass into the senior classes in his first year, and make that the point at which the test is to be applied—entrance to the senior classes?—And (to ask a further explanation), as I understand, he would, if he could not pass the examination, only be prevented from going to his degree?

10,420. Yes, or go back to the junior classes and then come up next year and be all right?—Then the idea is entirely new to me. I never thought of it before. It would, I think, obviate many of the difficulties with regard to entrance examinations. Whether it might not give rise to other difficulties, I hardly venture to say.

10,421. *Dr. Muir.*—Any young man with the object of improvement before him, could, in that manner, by attending the junior classes and by his own private study, attain the degree of advancement which is necessary to enable him to pass into the senior classes?—Yes.

10,422. Would it be very much worth while encouraging men who could not attain it in that time?—I was just about to observe that the plan seems to allow rather short a time to test a student's capabilities. One year is all that you allow in that case; and it would be an extremely inconvenient thing for many men to be thrown back to the junior classes,

especially in a University like ours, where so many are dependent on their bursaries to enable them to complete their education. If it occurred often, I fear there would be considerable inconvenience occasioned by it.

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10,423. *The Chairman*.—Don't you think, as things stand at present, that a student who has attended the junior classes and profited by them should be quite in a position to pass that examination which you have at present at the commencement of the senior classes?—If he has profited by them I think he should.

10,424. Then have you much sympathy with a lad who comes up to the University, and is poor, and requires to push, who does not pay attention to the instruction he receives at the junior classes?—No. I think it would be generally the case that where a lad has profited by the junior classes he might be tested. In whose hands would you place the examination?

10,425. In the hands it is in at present—the professors, with assistants or extra-examiners. If it is not, I should make it so—make it an examination conducted by the same examiners as examine ultimately for the degree.—It would be undesirable to put an examination of that kind into the hands of the professors alone. The difficulty would, however, be greatly removed by what you say. I think the idea you have thrown out is of very great importance. What I have shrunk from is the idea of an examination that should not be a reality, or one which should exclude too many.

10,426. The great object of the suggestion I have put to you is to avoid these difficulties?—Yes; and I see it would go to a large extent in obviating them.

10,427. *Dr. Muir*.—But you would always allow a backward man to enter into the University in that way—by attending the junior classes; you would not in process of time do away with the junior classes, and require the student, instead of gaining his knowledge there, to get it elsewhere, or at school?—That would depend so much on the opportunities afforded him of getting his education elsewhere, that I don't know that it is easy to give an answer to the question until we see the opportunities in existence.

10,428. *The Chairman*.—Suppose sufficient opportunity was afforded to students all over the country of acquiring as much culture and attainment at school as is now afforded by the junior classes, there would be no great harm then in abolishing the junior classes, would there?—I think not. That would, however, involve a very great change in our educational system.

10,429. *Mr. Campbell Swinton*.—Considering the operation of the Milne and Dick bequests, would it be a great change in your district?—I think so. I am, besides, afraid of what might be the result. It would be found even then extremely difficult to encourage the same number of young men to come forward to college as are at present encouraged to do so. You could only have such institutions as are referred to in large centres. They would not be widely spread; and you would have difficulty in bringing up young boys from their parents' houses to them at a sufficiently early age. You would require an enormous bursary system, and that seems to me to be unattainable, even if other difficulties were overcome.

10,430. Do you not think that the schoolmasters—even those under the operation of the Milne and Dick bequests—are qualified to prepare young men for the University—that they are all men qualified to give the same amount of instruction now given in the junior classes of the University?—I think they would find it impossible to do so in conjunc-

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tion with the other duties of an elementary school. They are very able men—some of them highly educated—as far as positive attainment goes; but I don't see how in conjunction with the other duties of an elementary school they could do it.

10,431. *The Chairman*.—Have you anything to suggest as to the necessity of new professorships or lectureships?—I have thought of that point only in connection with our Divinity Faculties. I lament extremely that we have no encouragement in the Church to lead men, after having obtained a parish, to prosecute their theological studies, and I think it would be a very great gain if any plan could be fallen upon to effect that end. It occurs to me that if we could get the funds, it would be of much consequence that to each Divinity Faculty there should be attached lectureships, without any fixed subject—lectureships under the government, we shall say, either of the University Court or of the Senatus, or of any other body thought worthy of the trust; which body should invite any man whom it knew to have been studying in any department with effect, to come and deliver a short course of lectures in the University in connection with the Divinity Faculty studies. Suppose there were (and I think it need not imply a very large sum of money) three or four of these lectureships, men all round the Church would feel that if they did pay attention to any department of theological study, they would become known and be invited to come to the University town and deliver a short course in the winter session in connection with the Divinity Faculty. I would leave the subjects open, however, so that a man might study according to his taste, and over even a limited field; and I think that would be a great spur to men to prosecute their studies in country parishes.

10,432. To what extent would you introduce this? Would you have more than one set of lectures in a year?—I could not object to more—say two lecturers, who should each give twelve lectures on some theological topic to which they had paid special attention.

10,433. Would you have them to be delivered at the same time?—No; you should arrange that they would not be at the same time; and I don't know that you could make the lectures compulsory.

10,434. *Mr. Campbell Swinton*.—Do you think the students would attend?—If a man were known to have paid attention to a particular department, and were believed to have something worth hearing to say upon it, the best of the students would attend. This is the only form in which I have thought lectureships might be with advantage established.

10,435. *The Chairman*.—What kind of endowment would be necessary? What would you give a man for twelve lectures?—Say £100. You must not make it too low. The benefit of extra-mural teaching, as far as I know, is that it furnishes a body of men to whom you could look for worthy successors to chairs when chairs become vacant. Now that end will be in a large measure effected by what I propose in the case of the Divinity chairs; and one of the chief difficulties in the way of the proper exercise of patronage would be met.

10,436. *Dr. Muir*.—How long would you have the lectureships tenable by the parties?—Say two, three, or four years; the lectures might be delivered in each of the four Universities. I would not make them tenable for more than four years.

10,437. *The Chairman*.—You could only look to private endowment for the support of such lectureships?—Yes, I suppose that is the only way in which it could be done; if at least it were thought advisable that the four Divinity Faculties should still be kept in existence, and I suppose it would not be wise to think of interfering with the number of

them, although some of them are not very well attended and are in rather a languishing condition.

10,438. How does it stand in Aberdeen?—Rather languishing.

10,439. What is the number of theological students?—Twenty-eight altogether. The classes are in that way small, and we can hardly venture to divide them into two, according to the progress of the students. They are so small that it is almost necessary to group them together, whatever their stage of advancement is.

10,440. *Dr. Muir.*—What is the number of years of the theological course?—Three.

10,441. Are the twenty-eight in each year or altogether?—Altogether.

10,442. *The Chairman.*—You mean twenty-eight at one time?—Yes.

10,443. You mentioned the subject of extra-mural teaching: do you think that should be extended?—I think not.

10,444. Would you recommend it in the Faculty of Arts?—The classes are sometimes too large in the Faculty of Arts, and if you had it in a form that would tend to reduce the classes, I should say it would be an advantage.

10,445. Would you rather that it should be extra-mural teaching?—Yes. I don't think that much would come of extra-mural teaching in this country.

10,446. Have you anything to say with regard to the patronage of professorships?—It is the Divinity chairs which chiefly interest me. I would think it very desirable if some other source of patronage than the Crown existed for the Divinity chairs.

10,447. You have one Divinity chair in Aberdeen which is in the hands of the Synod of Aberdeen, along with some other persons: does that patronage work well?—Practically it has hitherto worked well, but very much because the conditions on which the examination ought to be conducted are not strictly enforced. These conditions are examination in a great variety of subjects.

10,448. What is the examination practically?—It is only on those subjects; but the impression is—and I don't see how it can be otherwise—that men cannot decide a chair of Divinity or of Dogmatic Theology by the mere consideration of the examinations which a man makes in certain subjects. The examiner must allow his subjective impressions of the man as a whole to have a part in the decision, and that is a very undesirable state of matters: to be set to judge by examination, and to feel that you will do injustice to a higher interest if you do judge by examination alone.

10,449. Is it imperative by the foundation of the chair that the result of the examination shall be the sole qualification for the chair?—I do not remember the exact terms of the deed; but it implies that at all events it shall be the chief part of the decision.

10,450. *Dr. Muir.*—Are there many members of the Synod who are sufficiently learned men to be able to judge of the qualifications of candidates for a Divinity chair?—There is always a certain number of highly educated men in the Synod.

10,451. Would the bulk of the Synod follow their lead?—The Synod selects men for the purpose of the examination. It is not by the Synod as a whole that the examination is conducted; it is conducted by men selected by the Synod, by the Presbytery, and by the Senatus.

10,452. *Mr. Campbell Swinton.*—But you think that if the system has worked well, it is because the strict provisions under which the appointments ought to have been made have been evaded?—That is a strong way of putting it.

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10,453. I mean justifiably evaded?—I am very much inclined to be of that opinion.

10,454. *The Chairman.*—What is your notion of the best patronage for the Divinity chairs?—My notion would be this: that they should be in the hands of the members of the four University Courts grouped as a whole; or, if that were thought a cumbersome body to manage it, that you should follow the lines laid down in regard to the representation of the Universities in Parliament, and unite the Courts of Glasgow and Aberdeen for the patronage of the Divinity chairs there, and the Courts of St. Andrews and Edinburgh for the patronage of the Divinity chairs in these two Universities. It appears to me that one Court is too small to exercise patronage in a satisfactory way.

10,455. *Mr. Campbell Swinton.*—Do you speak only of Divinity?—Yes; but I have no doubt the same thing might be said of all the faculties, of which, however, I have not thought so much as of Divinity. The principle is, I think, the same in all. Probably the union of two Courts might be considered a small body, but all the Councils are at present wishing the Courts enlarged, and if you see your way to doing that, that difficulty would in some degree be obviated.

10,456. *The Chairman.*—Two Courts together would come to about twenty members?—Yes.

10,457. Now why do you prefer a body so numerous as that to one of half the number for the exercise of patronage?—In the first place, no Court consists, at the present time, of so many as ten members; and taking a smaller number, you have always to run more risk of local, perhaps family feelings, coming in to play a part. And you run this risk also, that the permanent members of the board, into whose hands the power almost necessarily falls in the course of years, stand then in rather a more overpowering relation to the small Court than they would do to a large one.

10,458. Who are the permanent members of the University Court except the Principal?—He, as far as I recollect, is the only one officially permanent, but then others may become by frequent re-election almost permanent.

10,459. But in practice has there not been a good deal of change?—Yes; I suppose much more of that than the other.

10,460. Then it is only because you fear a predominance of local influence in a small body that you would prefer a large one?—Mainly on that account. In the meantime, too, the patronage of our Divinity chairs being in the hands of the Crown gives those chairs a certain relation to the nation at large, which I think it would be very desirable to keep up. The same effect would follow by putting them into the hands of the University Court, which cannot be considered as an ecclesiastical body. I am a little afraid of the proposal to put them into the hands of the Church at large; not that I fear the legitimate and right exercise of patronage—I am more afraid that it would never be consented to. The dissenting communities would rebel instantly against such an idea.

10,461. Don't you think it would be undesirable for the Church itself to put the patronage into her hands?—The Church does not object generally to any amount of patronage.

10,462. But I am not speaking of its wishes, but of its interests?—I don't know that I see very clearly any reason why it might not be judiciously exercised.

10,463. Have you not suggested that the patronage, being in hands outside of the Church, gives it more of a national character?—Yes; if that is the point of view from which you are looking at the matter, I decidedly say so.

10,464. *Dr. Muir.*—Do you think any alteration ought to be made in regard to the constitution of the Theological Faculty—I mean in the way of throwing the chairs open to the other Presbyterian denominations, or in any other way that might be considered advisable?—I would not object to see them in some degree thrown open—I will not venture to say to the other Presbyterian denominations, for if you once throw them open, I should have difficulty in stopping there. I don't know that it would be possible to give a good reason why you should open them to the other Presbyterian denominations, unless you can go beyond that, and take in such men as the Congregationalists and perhaps the Episcopalians. You would find any resting-place of that sort only temporary. There are certain theological chairs which might be with great advantage thrown open. The chair of Hebrew, for instance; I don't see why it should be limited. I may say the same about Biblical Criticism; I don't see why it should be limited to members of one body. I am a little more doubtful about the chair of Church History; and in regard to Dogmatic Theology, I think I would preserve the test.

10,465. But you would not insist on the test in regard to the others?—No.

10,466. No test whatever?—Yes, I would have a test, but it would have to be of a very general kind.

10,467. *Mr. Campbell Swinton.*—In regard to the chair of Hebrew, would it be desirable to continue only a clergyman in it; could it not be held by a layman?—It might be open to laymen; but I think there is an advantage in having a clergyman as the occupant of the chair of Hebrew. I think it is of great consequence to young men training for the Church that their teacher should be acquainted with the work, and have the regulating influence on his own mind which the work of the ministry is fitted to exercise.

10,468. *The Chairman.*—Whom would you desire to exclude by means of a test?—I would exclude no one who came forward saying that he accepted the Scriptures as the word of God, and that he would faithfully and reverentially interpret them.

10,469. The sort of test you have shadowed out now would be intended to exclude, and would exclude, Roman Catholics?—As I have mentioned just now, it would not even exclude a Roman Catholic; but then I would not think it necessary to have minute tests to exclude this person and that person; I would trust a great deal to a well-constituted electing body. The body, of which I spoke formerly as the electing body, would possess a good many advantages. It possesses many members drawn from the heart of the community, and who would represent it. There is the Rector, chosen by the students; they come out of the community. The Rector's assessor may be considered as going with the Rector himself, and coming in that way as it were out of the feelings of the community. The Council's assessor—and if they are to get more than one, their assessors—may be regarded as coming out of the feelings of the community. I would trust a great deal to the heart of the community being kept sound, and to a body like the two Courts combined not making any appointment which should not really vindicate itself on the face of it.

10,470. *Mr. Campbell Swinton.*—Would you anticipate on the part of the Church such a concurrence in the scheme you have shadowed forth, that they would be satisfied with the teachers so elected as the teachers for their work?—I think there is a little more fear on the point than there is any necessity for. I think the Church would accept those men when it had faith in them, and it has it always in its power to withdraw its students. I don't see why it should not accept the men if it has faith in them, simply because they have not signed a special test.

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10,471. Would the Established Church not have a jealousy of a Free Church professor as its teacher?—Perhaps we would rise to a higher platform above these narrow jealousies; I think it is quite possible we might. There is something very unreasonable in the present state of theological education in Scotland, that we should have in the Established Church four Divinity Halls with four Divinity professors in each of them; that we should have three Divinity Halls in the Free Church with four professors in each, all teaching the same subjects; and that you should have in the U.P. Church the same classes going on at the same time. It seems as if there was a great waste of power in all that.

10,472. All teaching the same subjects, and virtually in the same way?—Yes. I don't know why there should not be, with advantage to all parties, a certain measure of—I do not know whether to call it mutual eligibility or what—but a certain opening of the doors a little wider; and a recognising that after all your main securities for the man are the general heart of the community being kept sound, and a widely-constituted board of electors to represent their feeling.

10,473. *Dr. Muir.*—Suppose things to remain on the present footing as regards tests and mutual eligibility, do you think the Divinity Faculty in each of the four Universities could be strengthened; or do you think it possible that a plan, which has been suggested here, could be acted upon, namely, that the professors, say in two of the Universities, should take two branches say in Glasgow and Aberdeen, or in Edinburgh and St. Andrews, and that the students might attend those professors teaching different branches of the subject in succession?—Do you mean that a professor in Glasgow should go and teach in Aberdeen, and that students from Glasgow should come and take the other part of the subject there?

10,474. Yes.—Then I think that would be attended with great difficulty in regard to the bursary system. It might also not be convenient for a student living in his father's house to go to a distant town and take a part of his education there. I have not heard the proposal before, but it strikes me it would be attended with practical difficulties.

10,475. Do you consider that the faculties ought to be added to in Edinburgh, Glasgow, and Aberdeen, by the addition of new chairs?—No; I would much rather add a few simple lectureships of the kind I spoke of, than new chairs. You cannot, without changing the whole course of education, institute new chairs that will be really useful. The curriculum is as full as it can be, or nearly so.

10,476. Have you anything more to suggest in connection with Theological Faculties?—I think not.

10,477. *The Chairman.*—What have you to say as to the emoluments of the professors?—I think it is much to be regretted that in many chairs they are so low as they are. The emoluments are not such as to enable a man to devote himself so entirely to the work of his chair as I think is demanded of him at present.

10,478. Your observations have reference to the Faculty of Theology, have they not?—Yes, only to that faculty. The consequence of this is that you sometimes have pluralities—persons holding a chair and a city charge.

10,479. But that is not common now, is it?—No; but there may be more of it unless something is done, because men cannot go on as they are doing. The system is really attended with serious results to the man who is anxious to pursue the work of his department. He is obliged to take a number of other little jobs in hand, so as to eke out his income; and in that way his attention is distracted from his proper work.

10,480. Then to what extent do you think the emoluments of the

Divinity professors ought to be increased? What kind of proportion should the increase bear to the present amount?—It would vary, of course, with the different chairs, because they are differently paid; but generally, I should say, a Divinity professor, living, as he always must do, in a town, and the University towns being all nowadays equally expensive, in most respects at least, ought at least to have £600 a year. The U.P. Church has had that question under consideration, and has resolved that all its Divinity professors shall have £700 a year. The Free Church is, I understand, to take up the matter immediately, and there is no doubt that it will not stop short of the point indicated by the United Presbyterians. I should be disposed to say that where there is no house, a Divinity professor ought to have £700 a year. If you give him £600 and a house, as some of us have, then I would consider that, in present circumstances, to be fair.

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10,481. You say, 'as some of us have.' Do you mean that any of you has a house and £600 a year besides?—No. I mean that some have houses, but none of us have so much emolument as that; we are all considerably short of it. Another matter, specially connected with Aberdeen, that I should bring under the Commissioners' notice is this. It was one of the arrangements made by the last Commission, that in order to help the incomes of the professors, certain funds, called the Murray Fund, should be assigned to them, and that they should do the duty of preaching in the chapel, which had formerly been paid for out of the Murray Fund. It seems to me, on looking at the Ordinances, that it is not perfectly clear whether that payment is considered as a part of the professor's professional income, or an extra payment in consequence of extra work done; and there might be a question with the Government as to the light in which this fund is to be considered. It is of consequence to make that point clear beyond doubt.

10,482. Have you anything to say in regard to bursaries?—You are aware that the Drum Divinity bursaries are wholly presentation bursaries, and that in the Divinity Faculty they are very large, amounting to £74 a year. What I am anxious to suggest is this—whether it might not be possible to purchase that right of presentation by sacrificing a portion of the funds, and then throwing the bursaries open to competition.

10,483. That must be by a transaction with the patron?—Yes.

10,484. *Mr. Campbell Swinton.*—But with the sanction of the public authority?—Yes. You would require the consent of all parties; but I believe all those who know the operation of the bursary system would think that it was a gain to the college, even though they had less money.

10,485. *The Chairman.*—Thus you would be prepared to cut down the amount of the bursaries—not the aggregate amount, but the amount enjoyed by each bursar, in order to provide a price for the patronage you want to acquire?—Yes.

10,486. They are absolute presentation bursaries, given without any examination, are they not?—Of course a student must have passed into the Hall, but there is no special examination. The sum at present given is needlessly large—£74 each—and four of them.

10,487. The present amount and number of the bursaries, and, in short, the whole regulation of that foundation, was recently settled by the Court of Session?—Yes.

10,488. Both the University and the Court seemed embarrassed by the richness of the endowment?—It is a very rich one.

10,489. And the multiplication of bursaries was an evil in one direction, and the increase of the stipend of each bursar was the evil in another direction?—Quite so.

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10,490. Are these the only Divinity bursaries you have?—No, we have a good many other, but they are comparatively small.

10,491. Are they all presentation bursaries?—Not all.

10,492. Are some of them open to competition?—I should say about one-half.

10,493. *Mr. Campbell Swinton*.—Do any good results accrue from the competition bursaries?—It is always of advantage to have them by competition.

10,494. *Dr. Muir*.—How many are there altogether in the Divinity Faculty?—Twenty-seven.

10,495. Then there is one for each student?—Almost. Indeed I think there is one for each regular student this year. When I say twenty-eight is the number of the students, I think one of them is a partial student, and he is not entitled to hold a bursary.

10,496. *Mr. Campbell Swinton*.—And no one can hold two?—No.

10,497. *The Chairman*.—Is it desirable to have so many?—As a general rule, I think it extremely doubtful. It is easy to overdo a bursary system. The only question is whether, for those who are educating for the Church, where there is not a great deal to tempt men forward, and where we draw our men largely from those who are not in good circumstances, the existence of a large number of the bursaries may not be less objectionable than in other cases. As a general rule, I don't think the existence of a large number of bursaries is a great gain.

10,498. *Dr. Muir*.—In proportion to the possible number of candidates, and there being a large number of bursaries, there may not be much competition with you?—When I speak of a large number of bursaries, I include presentation and competition bursaries. Where they are all competition bursaries, some of the evils do not exist in the same form, and you have a certain security for the merit of the lads.

10,499. *The Chairman*.—Setting aside the four Drum bursaries in the Divinity Faculty, who do not need to enter into any competition, your competition among the remaining students would come to this, that the best men would get the best bursaries?—Yes.

10,500. But they will all get something?—If we had always the same number as we have this year. I have not known it so low before; we are reduced in number this year, and next year there may be an increase.

10,501. Is there any other matter you wish to speak upon?—There is the matter of the deaneries, which the Deans were anxious I should bring before the Commission. The Deanery Fund, which constitutes the chief endowment of five Divinity chairs, is in an unsatisfactory state, owing mainly to the increase of augmentations. There have been so many augmentations, and there are some still to come, that the deanery funds have been falling steadily, and there is every appearance that they will fall for a considerable time to come. I feel that there are great difficulties in the way of the Commission. You cannot think of giving national funds to the Divinity chairs, but even an expression of opinion on the part of such a powerful and important body might stir up exertion elsewhere. That is the feeling I have. The thing I lament so much is the fact that it has been my experience, and I know it has been the experience of several colleagues, that while we would give anything to devote ourselves to our own proper work of not merely teaching the classes, but trying to advance the subjects we have taken in hand, we are prevented from doing so by the necessity of entering on a number of small employments of a distracting nature, simply to eke out the imperfect incomes of the chairs.

10,502. *Mr. Campbell Swinton*.—There has been no systematic movement on the part of the Church in that matter?—A committee was appointed, but it has done nothing.

Rev. Professor
Milligan,
D.D.,
Aberdeen.

Adjourned.

SATURDAY, 10th February 1877—(Fifty-Eighth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

JAMES ALEXANDER CAMPBELL, Esq.

HELY H. ALMOND, Esquire, examined.

10,503. *Mr. Campbell Swinton*.—You are Head-master of Loretto School at Musselburgh?—I am.

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10,504. And you are a member of the General Council of Glasgow University?—Yes.

10,505. That is from having been a Glasgow student?—Yes, from having been a Glasgow student before I went to Oxford. I am not a graduate, but a member of the General Council.

10,506. You attended, as you say, the University of Glasgow before you went to Oxford?—Yes; I was a Snell exhibitioner from the University of Glasgow.

10,507. *Mr. Campbell*.—Are you a member of the business committee of the General Council of the University of Glasgow?—Yes.

10,508. *Mr. Campbell Swinton*.—We should like to be favoured with your opinion as to the course of study and the regulations for graduation in Arts in the Universities. Arts, I suppose, is the only subject you would like to speak to?—Yes. I do not profess to give an opinion on any of the other faculties. The question you have now put to me is rather a wide one, but it appears to me that the Glasgow and Edinburgh courses are already too diffuse, and that this tends to prevent graduation. There are certainly more subjects required for a pass degree there than at the English Universities.

10,509. What alterations would you suggest in order to remedy that?—I would suggest that natural philosophy and English literature should not be compulsory subjects, but that alternative subjects should be given, and that Latin and Greek, and probably English composition and the moral sciences, should be compulsory for a degree.

10,510. By the moral sciences you mean logic and moral philosophy?—Yes; and I think that a certain amount of mathematics should also be required. There are many men who can never attain beyond a certain amount of mathematical study, and I think that many are prevented from passing in Glasgow by the severity of the natural philosophy examination.

10,511. Then you would make Latin, Greek, elementary mathematics, and the moral sciences compulsory?—Yes.

10,512. And also English composition?—That is rather a difficult

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question, because English composition is so far tested by translations from other languages and also by questions in logic and moral philosophy, that it is doubtful if it is necessary to make it a separate subject. I may say that English composition is necessary to an Oxford or Cambridge degree, because the answers on the moral sciences and kindred subjects, and also translations, have to be written in English, but there is no separate English composition necessary for a pass degree.

10,513. Then, in addition to these compulsory subjects, you would have certain alternatives?—I would have certain alternatives. I would have, for instance, a period of history, either ancient or modern, or natural philosophy. I am merely giving two subjects which might be taken as alternatives, and not professing to give a complete system. I am merely giving you a sketch of the kind of system I would propose. Probably it ought to be different in different Universities, as Oxford and Cambridge differ, and it is well that they should do so.

10,514. Would you apply the same principles to degrees in honours as to the ordinary pass degree?—I think the principle of degrees in honours is rather different. I think for degrees in honours I would admit a man with fewer subjects if certain entrance examinations were introduced. If the student had passed these entrance examinations, I would leave a very wide latitude to him about honour subjects.

10,515. *Dr. Muir.*—You would not require a man proposing to take an honour and not to take the degree itself to go through the course prescribed for a degree?—He might have to go through the course prescribed for a degree, but I am not at all certain that he ought to be able to undergo a pass examination on all the subjects. It certainly has been the tendency at Oxford and Cambridge lately to allow a man who has gone in for honours, having already gone through a preliminary pass examination, to go out in his final examination in his honour subjects alone.

10,516. *Mr. Campbell Swinton.*—Is the preliminary examination which they pass in that case an entrance examination, or is it an examination after they have been a certain time in the University?—It is an examination that used to be gone through after they had been a certain time at the University, called responsions at Oxford, or the 'previous examination' at Cambridge. It is now very commonly passed, in the form of a 'leaving certificate,' before a man comes up to the University at all. If a man has passed his leaving certificate examination, he is comparatively free, if he is an honour man, to select any set of subjects he chooses.

10,517. Do you mean a leaving certificate the examination for which takes place at school?—It takes place before a boy leaves school, either at Oxford or Cambridge, or at other convenient centres. The examination is conducted by a joint Oxford and Cambridge board. The leaving examination, I may add, must be passed in four subjects, and it may be passed in six.

10,518. It is in fact a matriculation examination?—Yes, but only of a rather higher standard than the college matriculation examinations. It is also rather higher than responsions at Oxford.

10,519. Does that exhaust what you have to say on the subject of the course of study and the regulations for graduation?—What I am anxious to see in the regulations for pass examinations is the exclusion of 'cram' subjects. I think that London University has introduced a great many subjects which can hardly fail, for pass examinations, in being 'cram' subjects,—that is to say, in leading the candidates for the degree simply to get up a certain number of facts, the results of other men's investigations—not having to make any investigations themselves, but

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merely to put down facts which he has got up by rote. I think the examination papers that have been set at such examinations tend to show that. I may be allowed, as an illustration, to read a part of a Glasgow examination paper as showing the kind of examination questions I object to; and I would object as much if the same style of examination were applied to classical literature as it has been to English literature. In a paper actually set at Glasgow for the M.A. examination, the following questions were put:—‘Mention some of the chief plays of the following authors,—Ben Jonson, Beaumont and Fletcher, Massinger, Ford, Marlow, Congreve, Vanbrugh, Otway, Goldsmith, Sheridan.’ ‘Briefly characterize the following dramatic personages, and mention the plays in which they occur:—Mercutio, Osrice, Edmund, Brabantio, Cassius, Octavia, Clarence, Wolsey, Apemantus, Constance, Hotspur, Jacques, Puck, Ariel, Viola, Rosalind, Claudio, Launce, Bobadil.’ ‘Name the works of the following authors, and give their proximate dates:—Bede, Cædmon, Alfred, Langland, Gower, Skelton, Dunbar, Sackville, Raleigh.’

10,520. Is a paper of that kind distributed some time before a man goes up for examination?—No.

10,521. Then how can it have the effect of ‘cram’ if they don’t know beforehand what they are to be examined upon?—It has the effect of ‘cram’ because they are simply getting up facts about the authors, which seems to me to be a valueless sort of education. It does not seem to me to give culture in any way.

10,522. But if that paper is not distributed beforehand, the students don’t know the exact authors who will be set to them?—No; but they get up isolated information of that kind, which appears to me to have no more effect in producing culture than if you were to ask who were Diodorus Siculus, Hellanicus, and Arrian,—what were their works, and where did they live.

10,523. That is to say, candidates know that questions of that kind will be put to them, although they don’t know the individual questions, and they prepare accordingly?—Yes, and it appears to me that in an examination in English literature, questions of that kind are quite unavoidable. I say the same thing with regard to classics, that classics would not be entitled to hold their place as a branch of general culture if they were studied with a view to answering questions about classical literature, and not for examinations in classical literature and composition. The difference between the two is very great. I wish to put that point strongly, because I would object every bit as much in classics as in English to that style of examination about literature. I may say that I have studied the Indian Civil Service papers very carefully; and I don’t see how an examination about the literature of any language can fail to introduce ‘cram.’ I may be allowed to refer to the last paper set in the Indian Civil Service examinations on the same subject, in order to show how impossible it is to avoid that style,—‘State what you know about the following works, their dates, authors, and subjects:—“Philobiblon,” “The King’s Quair,” “The Confessio Amantis,” “The Paxton Letters,” “The Repressor,” “The Alchemist,” “Tamburlane,”’ etc. Another favourite style of question is to take a number of ‘beauties’ selected from English authors. I know how the authors are studied for this purpose; they are marked under the guidance of a competent tutor. The candidate has not really read the authors, but he has with the aid of the tutor got up the principal passages likely to be set. Another style of question is to ask the student to compare the styles of different authors—e.g. of Hume, Robertson, and Gibbon. I have often spoken to candidates on these subjects, and I know how such questions are

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answered. Of course a young man of eighteen or nineteen has not formed his opinion from reading Hume, Robertson, or Gibbon's works. He has not read them so as to be able to form an opinion for himself with regard to them. What he has really done has been to get up ready-made opinions about all the chief writers from a text-book, or he has got them from a 'crammer,' a person who gives him what are called 'tips' on such subjects, just as he would give him pat criticisms on Herodotus, Thucydides, or Euripides, which are really perfectly valueless for culture. This was well brought out by Messrs. Harvey and Sellar in their Report on the Scotch Schools. They say,—at p. 120, vol. i. of their Report,—'An acquaintance with the names of some half dozen Latin and Greek authors, with the number of plays in Æschylus or Sophocles—a few pat criticisms in Herodotus and Livy, with a knowledge of the number of books in Homer would go very little towards classical culture.' I may perhaps add as another objection to this that it tends greatly to increase the work of the student, which was great enough already before the introduction of this subject. He has to get up a great many facts of that kind, which are of little value to him, and doing this occupies a great deal of time, which might be more profitably devoted to other purposes. It is not as if he were devoting the time to philosophical or historical questions, where the mind must be fresh, and where overwork defeats its own purpose; but the amount of time taken up in the acquirement of these subjects is most injurious to health, because almost any amount of time may be taken up in getting up mere facts of names and dates; whereas, if you have to answer questions requiring the exercise of reason, you must have your mind fresh and in good order, and the overworked student, in place of showing culture, is apt to fail. I may add on a kindred subject that I fail to see how one branch of science, such as botany, or chemistry, or physiology, taken as a pass subject, can be of much benefit to culture, and I don't see how it can be dissociated from 'cram.' I have never yet seen a paper where it was dissociated from it; and I am supported in that view by papers set out for the last Indian Civil Service examination, to which I may refer as an illustration. It has been proposed to introduce the same thing into the Scotch Universities, but I for one feel strongly opposed to it. For instance, in botany, we find the papers necessarily full of questions like this—'What are the characters of the order Amentaceæ, and of its sub-orders?' I don't see what that has to do with culture; and through the subjects of geology and chemistry we find questions of the same kind. It appears to me that the first question set in moral science is a far greater test of culture, and would lead to a better style of reading, than all the pass science papers put together:—'Causes which promote or retard the growth of the sympathetic feelings among men.' You cannot 'cram' for questions of that kind. You have got to think it out for yourself at the time. You have got of course to have a knowledge of the opinions of the different writers on philosophical subjects; but then, at the same time, you must use your intellect,—you must think;—whereas, in what I call the 'cram' subjects, you have merely to reproduce the *results* of the labours of other men. Even for science, therefore, it is difficult to avoid 'subjects being to a certain extent cram.' I have heard of an experienced Oxford examiner saying that the difficulty in physical science papers was to set questions which should test a man's ability, and his power of original research, and not merely test his knowledge. I think that exhausts what I have to say on this subject, except perhaps I may be allowed to refer to one point on which I have a strong opinion. There have been some proposals made

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to make Greek an optional subject; to this I have the very strongest objections. It appears to me that Greek is the very corner-stone of liberal training; and I think the practical experience of every teacher tends to show that the study of Greek actually does tend to produce a greater amount of intellectual development than any other branch of study. I have noticed this myself since I became a teacher. I don't know that it would have been my opinion before I taught, but it has been distinctly my opinion since I taught, and has been the result of my own experience. It is difficult to give one's reasons for such an opinion; but besides giving it as the result of my own personal experience, I may say that it has also been a matter of experience at the German Gymnasien, at which at one time the modern subjects held co-ordinate place with classics, but there has been a restoration to humanistic studies to be the main instrument of education. To quote from an official document: 'Whenever such a dispensation (from the study of Greek) is granted, the boy is to be informed that he is thereby excluding himself from the final (*abiturienten*) examination . . . The object of the examination is to ascertain what the boy really knows, and what he can do; a result which is the slowly ripening fruit of steady and regular diligence, and cannot be gained by hurried exertion during the preceding few months, much less by confusedly learning by rote a mass of names, dates, and incoherent facts. It is to be so conducted as to exclude all inducement or encouragement to special preparation or "cram."—[Appendix G. to Public Schools Commission Report, pp. 54, 55.] To pass in that *abiturienten* in Germany is essential to admission to any University. I think its standard is considerably higher than that of any pass B.A. or M.A. in England or Scotland. It is passed mostly by boys of nineteen, and, besides being necessary to admission to any University, it is necessary for admission to any public office, or for a commission in the German army, and Greek is one of the compulsory subjects.

10,524. Although it is going rather beyond the subject to which you are specially speaking, namely, the course of study and graduation in the Faculty of Arts, yet I may ask you—would you carry your views with regard to Greek being compulsory to the extent of holding it compulsory in a preliminary examination, say for the medical course?—I would hardly say so. I think that a medical student who has not studied Greek has lost an advantage in the way of culture; but there are many men who have not had any opportunities in that way early in life, who at the same time may perhaps, at the age say of eighteen or nineteen, wish to study medicine, and I should be very sorry to do anything to have them debarred from it. At the same time, I have the evidence of two old pupils who have both been demonstrators, the one in Edinburgh and the other in Glasgow, who did not begin any technical subject whatever until they entered the medical course; and one of them, a man of by no means first-rate ability naturally, told me that he had derived an immense advantage from his early studies over men who had not received the same culture. He had been reading for the Indian Civil Service, and had been prevented going in for it through an accident to his arm; but his general culture was of great service to him. Both of these men were medallists and demonstrators, and they have both informed me very strongly that the general culture they had received gave them an immense advantage over those who did not have it. Still, as I say, I should be very sorry to debar those who went into medicine rather late in life from doing so, merely because they had not gone through Greek.

10,525. I suppose you would consider Latin absolutely indispensable?

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—Certainly, I would. I suppose it is indispensable even for reading medical books and medical prescriptions.

10,526. Will you favour us with your opinion as to the institution of entrance examinations?—I suppose that entrance examinations are most desirable, with one exception,—that exception having reference to the older students, who often come up in Scotland to the Universities. I should be very sorry indeed to shut them out. They are men from the age we will say of nineteen,—past the usual schoolboy age,—up to forty, who have been in the traditional habit of coming to the Scotch Universities. I know that when I was at Glasgow University they were there in large numbers. They are men of various positions in life,—some of them clerks, and some of them even working men, who get a very great deal of advantage from going to the Universities. It has been a national custom for them to go there, and I should be sorry to see it discontinued; but I think that for the younger students entrance examinations are most desirable, because the mass of ignorant boys with whom the classes are at present flooded is most deplorable. I have seen the entrance papers actually set by Professor Ramsay; and I can speak to this, that a very large number of those who come up to the University at present would be unfit to enter Rugby or Marlborough.

10,527. Then, would you make age the test of whether an entrant to a University should be subjected to an examination or not?—I think that in the special circumstances of Scotland, I would be disposed to exempt men over a certain age from the entrance examination.

10,528. What would you say to a plan that has been suggested to us that in order to follow out your view and to exclude nobody, there should be no entrance examination for the junior classes, but that there should be an examination at the end of the first year's course for all students who intended to go on for degrees?—Do I understand you that other students would be allowed to go on and take advantage of the classes who were not going on for degrees?

10,529. Yes; but that those who are going on for degrees should be subjected to an examination at the end of the first year; in short, that the practice which exists just now as to students who intend to enter what is called the three years' course should be made universal, and applicable both to those who have attended the junior classes and to those who come direct from schools?—It would be a very good thing if it were made universal, but at the same time it appears to me that the proposed plan would be likely to make the professor responsible for and to make him take up his time merely with a large number of students who did not mean to go up for degrees. I would rather be disposed to exempt the older students on the special ground of their age, and then make the entrance examination,—having given due notice of it,—compulsory upon all students who matriculated in the Arts course. Of course, my reason for mentioning the age of nineteen or twenty is in order not to exclude these older men.

10,530. *Mr. Campbell.*—Would you not draw the line at an earlier age than nineteen?—Perhaps so. I think that is a matter of detail on which a professor would be better qualified to judge.

10,531. *Mr. Campbell Swinton.*—Would you allow these older students to go on even for degrees without passing an entrance examination?—I don't think as matter of fact that they would go on for degrees, but I think it would show very great merit on their part if they could get up to that standard. What one wishes to do is to raise the standard of the schools, and also to prevent the Universities from being flooded with classes of students, a large part of whom I should say could not enter

the middle division of any English public school, like Rugby or Marlborough.

10,532. But is not that state of matters at present very much owing to the fact that secondary education is not in so high a position as we should wish to see it?—That is one reason. Another reason which seems to me to be operating in the same direction is the effect of the Education Code on the primary schools. A large number of the very best students in the Scotch Universities have been taken from the primary schools, and one great merit of Scotch education has been that the cream of the country, as it were, was got hold of from the country districts, and taken to the Universities; but the Code is destroying that. I have evidence of that from schoolmasters themselves. I am a member of a School Board, and I have evidence from various parts of the country, that the 4s. payment for classics and philosophy, geography, mathematics, and so on, is destroying real culture in these primary schools.

10,533. Have you anything more to remark as to entrance examinations?—I think it would tend to raise the standard of education very much if a definite date were proposed for the establishing of entrance examinations. If they were instituted without fair notice, it would lead to the exclusion of a very great number of students or to the examinations being merely nominal, which I would greatly regret. I think that entrance examinations, if established at all, should be of the standard of the present three years' course, which is probably as much lower than the standard of the leaving certificate, which I mentioned before, as the leaving certificate is lower than the *abiturienten*.

10,534. But would even that previous notice of a certain number of years be sufficient, unless during that probationary period of years a considerable improvement took place in the secondary schools, and unless there was also a removal of the defect which you have mentioned exists as a result of the Code in the primary schools?—Not without that, but I think that if, say five years' notice, were given, it would tend very much to stimulate improvement in the meantime.

10,535. *Dr. Muir*.—I suppose you would consider that a considerable if not a very great elevation of the standard of instruction in the classical department is a desideratum?—I think it is a desideratum. I think it is a great desideratum at a University that a man like Professor Jebb at Glasgow, or his predecessor, Professor Lushington, should not be employed in teaching the Greek alphabet.

10,536. *Mr. Campbell Swinton*.—Does that exhaust what you have to say about entrance examinations?—I think it is perhaps hardly alien to the subject if I were to say, that there appears to be an enormous amount of endowments at present in Scotland, as came out before the Endowed Schools Commissioners, which might be exceedingly well applied partly to what is wanted in the primary schools. I have already spoken about the 4s. payment for the higher subjects in these schools, but that is quite inadequate to carry out the object in view. Of course, there will be a few enthusiasts who will not regard the money payment; but a 4s. or even a 10s. payment could never pay a schoolmaster for the immense amount of trouble he takes to bring a parish boy up to the proper degree of culture. I may say, however, that there are schools where it is done. I found a school in Sutherlandshire this year where the boys were reading Livy in Latin, and books i. to iv. in Euclid.

10,537. And that is a district beyond the range of the Dick and Milne bequests?—Yes. These, however, are rather scarce enthusiasts, and what is wanted, I think, is rather that money should be got in some way

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or other, perhaps from these endowments left for education, to provide assistants in schools in any district in the country where the teachers showed themselves competent to bring up boys to the University standard. I do not think the plan which has been proposed of having central schools to which country boys should be transported is a good one. I think it would be a bad thing to take boys from their own home influences and to plunge country boys into the hurry and temptation of our towns. It would be better if we were to take the town boys to the country and not the country boys into the towns. The physiological and moral influences are very much against that.

10,588. *Dr. Muir.*—Are you well acquainted with the German University system?—I am only acquainted with it from official documents. I am pretty well acquainted with the requirements for the entrance to a German University. That entrance standard is put so high—I speak of the *abiturienten*—that a student after passing it is considered competent to choose his own course, and he has no further examination in Arts; but that standard of entrance is higher than any pass B.A. or M.A. in this kingdom.

10,589. Do you think it would be desirable if we could introduce that system into this country?—We are certainly not ripe for it yet. I could hardly pronounce an opinion on its abstract desirability; it is really carrying a University standard to the end of a school career. It would be quite revolutionary, and we should not be ripe for it probably within this generation at least.

10,540. Do you suppose it raises the standard of instruction in German society—say, for instance, among the middle classes or the clergy of Germany—above the standard of the corresponding classes in this country?—I think so. I think it raises the intellectual standard of the officers of their army much above the standard of officers in ours. I may mention a remark which a very intelligent German made to me. He said: ‘I think you have as much to learn in this country from our definiteness of system in the German Gymnasien, from our not having that choice of subjects which you appear to have got, and the amount of technical education which you have mixed up with culture, as we have to learn from you in the amount of social and physical training which the English public school system gives to boys.’

10,541. *Mr. Campbell Swinton.*—Do you think any new professorships or lectureships are required in the Scotch Universities?—I ventured to put in my *précis* that I thought the establishment of a Professorship of Hygiene was exceedingly to be desired—I mean by that, the general management of human life and its surroundings from a physical point of view. The want of that, I think, is shown in the general ignorance which exists on such subjects, among schoolmasters as well as among other people. We are all working very much in the dark on questions regarded from their physical side.

10,542. *Dr. Muir.*—By whom would you require that to be studied?—I think it should at first be voluntary; but I should very much like to see it compulsory on schoolmasters. It is a most important subject for any one to know who has the management of a number of human beings.

10,543. *Mr. Campbell.*—Ought not the Professor of Education to take that up?—You would require a man with a medical education to take it up. The Professor of Education might; but it seems to me to be more a separate subject which is very much wanted.

10,544. *Mr. Campbell Swinton.*—If the future Professors of Education were educated by the acquirement of such knowledge, then it might fall

under that professorship?—Certainly it might; it is very closely connected with it.

10,545. Do you think there is any other new professorship required?—I cannot say that there is at present.

10,546. Do you think there is sufficient provision in our Universities for assistance and apparatus to the professors?—Of course I cannot speak about apparatus; but talking of the Arts Professors, I certainly think there is not sufficient assistance for the Classical Professors. In Glasgow you have 504 humanity students, and there is certainly a want of assistance for them.

10,547. Is it not the case that Professor Ramsay has several assistants?—I think you want more than he has. There is no possibility of individual instruction with so many students, especially in the subject of composition. It is impossible to get up any good standard of composition with so little assistance.

10,548. How many assistants would the Professor of Humanity in Glasgow require?—He has at present, I believe, one assistant, and also several tutorial classes conducted by Fellows or senior students. I can hardly say how many he would require; but of course every professor is not bound to provide assistants of his own by the present arrangement. A professor, or one more intimately acquainted with the University than I am, would be better able to speak to the source from which funds should come for the payment of that assistance. I was merely speaking of the general system; but I think that such assistance is very much wanted for the individual training of many of the students, and especially for the teaching of composition; and for the looking over say of written translations, which are perhaps the best means we have of teaching English composition. It is impossible to look over and criticize written exercises without a great deal more assistance than the professors have at present.

10,549. What is your opinion as to the present length of the University sessions?—So far as I can tell, they suit the circumstances of the country very well. I don't think my evidence on that subject would be of very much value; but I myself feel opposed to summer sessions. I think the present sessions are long enough for both professors and students under present circumstances.

10,550. What are your views as to the recognition of extra-mural teaching, confining yourself, of course, to the Arts Faculty?—From what I know of extra-mural teaching, I would object to it. I think it would destroy unity of organization. I think the professor should be the head of all organization, and I think he teaches not merely for the purpose of enabling the students to pass examinations, but he teaches for the purpose of culture. So far as I understand the meaning of extra-mural teaching, it would mean that self-appointed teachers would teach students.

10,551. Not necessarily self-appointed; they would necessarily be recognised by the University Court?—Yes; but the student would have the choice of his own teacher, and he would naturally rather go to the one who would get him quickest through his examinations. Now, the great object of University training is general culture, and I certainly think, as I said before, that unity of organization is most desirable, and that all teaching on a particular subject should be under the guidance and control of the professor.

10,552. In short, you think a system of extra-mural teaching would lead to a system of cramming on the part of the extra-mural teacher, and probably ultimately on the part of the professor himself in self-defence?—Yes, very likely it would.

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10,553. Is there anything you would like to tell us as to the present mode of appointment to bursaries, scholarships, fellowships, and other similar foundations, and the conditions of their tenure?—I think the presentation bursaries have been productive of many evil effects. From all the evidence I have been able to collect, I believe the holders of many of the presentation bursaries have been actually below the general level of University students instead of above them, and these bursaries have frequently been given from motives of interest.

10,554. Would you entirely abolish presentation bursaries, or would you think it sufficient if the presentee to such a bursary should be necessarily subject to an examination?—I think they should all be required to pass an examination immediately—I mean without the delay I mentioned as to entrance examination. I think they should at once be required to pass an examination equivalent to the three years' course; and then I think there would be very little objection to them. There is a great danger of these things which have been left for the poor really becoming the property of the rich, as scholarships have done at some schools in England—I may mention particularly Winchester, where, unless a man can afford an expensive training for his son, he has no chance of getting a scholarship. I think there is a danger in that direction.

10,555. But you don't think any rule should be laid down by which poverty should form a part of the consideration?—No; because I think it would tend to prevent the liberality of future donors if stringent conditions were imposed.

10,556. Then you think the evils existing from the present presentation bursaries would be sufficiently met if the presentees were subjected to an examination?—Yes, to a pass examination of a good standard.

10,557. Have you any other remarks to make upon that subject?—I think not. I don't think I am qualified to say much upon this subject, for I am not so well acquainted as the professors are with the details of the bursaries and scholarships which at present exist. I was merely indicating certain general evils and dangers which there are in both directions—both in that of absolute nomination, and in that of free and open competition.

10,558. I suppose you have, no doubt, both from your own experience, and from what you know of the University of Glasgow, that the Snell foundation has been of great benefit?—None. I was under the nomination system, and I am not sure but the system of nomination by the professors is better than the system of examination. I think the system of examination tends to make the student work too much for the examination at the end; whereas, in my own time, if you wanted a Snell, you wished to do as well as you could in every class.

10,559. And the professors appointed to the foundation those who they thought had been generally most distinguished?—Yes; and those who, on the whole, appeared to them most qualified to profit by an English University course. Now it is entirely a matter of examination—the examination being the same as in the M.A. for honours.

10,560. *Mr. Campbell.*—As a member of General Council, have you anything to say on the subject of the functions of the Council?—I don't think so.

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10,561. *Mr Campbell Swinton.*—You are Professor of Public Law in the University of Edinburgh?—I am.

10,562. And you have been so since 1862?—I have.

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10,563. I presume it is principally with regard to your own Faculty that you wish to give evidence?—Yes, exclusively so. I want to say a few words about the library; but, apart from that, it is exclusively on the subject of the Faculty of Law that I wish to give evidence.

10,564. Will you give us your opinion as to the course of study and the regulations for graduation in the Law Faculty?—I cannot say that on the course of study I have any particular remarks to make, unless the scope of the Faculty of Law were extended as I should propose. There would then be an alternative course of study given; there would then be an option given to the students.

10,565. How would you propose to extend it?—Perhaps I may as well explain the reasons why I think some such extensions ought to be made. I have had a small schedule made out, showing the amount of graduation since the institution of the degree of Bachelor of Laws. The degree, as the Commissioners are aware, was instituted by the former University Commission on 12th July 1862. There could of course be no graduation in 1862; but from 1862 down to the present time I myself, I may say, as well as others, entertained very sanguine expectations of the good results of that degree; but these expectations have not been fulfilled. I find that only 26 persons have graduated since 1863. There have been in that time 4670 Law students altogether in the University. If you allow three years' study to each of them, that would give something like 1556 persons who might have taken the degree of LL.B. I have also got here, for the purpose of comparison, a statement of the amount of graduation in the other faculties. I need not trouble the Commissioners by reading it at present, because it is a thing more to be looked at and studied than to be merely read over; but I may say that it exhibits a very much higher percentage of graduation.

10,566. Does not that arise from the fact that a greater number of Arts students take the whole course than is the case with Law students?—I don't think so.

10,567. It is the case, is it not, that of the number of Law students that you mentioned only a proportion have taken the whole available course of law?—Yes; but only a very small proportion of the Arts students go through the whole course with such fulness as to enable them to graduate.

10,568. The Faculty of Advocates is the only legal body, I think, that requires the whole course of law?—It is. It now accepts graduation in lieu of examination.

10,569. And therefore nearly all those who have taken the degree of LL.B. were men who were going to the bar?—Almost all of them. I may say that of the men who were going to the bar all of them might have taken the degree; so that if you take it on an average that eight men a year went to the bar since 1863, you will see how many members of the bar might have taken it, and how few of them actually did take it.

10,570. To what do you attribute their not taking it, when such advantages are attached by the bar to taking it?—I must explain that these advantages have been attached to it only quite recently.

10,571. But there is the advantage attaching to it of entirely exempting from examination?—Yes.

10,572. When was that done?—I think not more than three years ago; but then you are aware that the option of being examined *videlicet* at the Parliament House still exists. It is true that the professors act as assessors, and that the examination is not made so slight as it was before; but we all know that an oral examination, where a number of

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gentlemen sitting round a table are desirous of being civil and kind to a young man, is almost always much more merciful than those examinations which are conducted at a University not only orally but also by the regular machinery of examination papers.

10,573. I observe that out of five men who came to the bar in 1876 none had taken the Law degree; out of eight who came to the bar in 1875 only three had taken the Law degree; going back to 1874 and 1873 none had taken it; and in 1872 one out of three had taken it. Do you think it is because the examination for going to the bar is easier even now than the examination for taking the degree—that there is a tendency among men who are to pass for the bar not to attempt to take the degree?—No; if the inducements were greater. I don't think there is any difficulty attaching to the examination that need stand in the way of it. I may explain my reason for holding that opinion, and I may do so by reference to the men who have attended my own class. My class of course has always been a small one, and it could not, as matters stand in this country, be otherwise; but still altogether 218 men have attended it since my appointment. A very large majority of these men have been already graduates. They have taken their degree of M.A. either in Scotland, or, as has been the case with a considerable percentage of them, have been Oxford or Cambridge men. Generally there have been three or four Oxford or Cambridge men at my class. This year I have more than that number. Now, all these men could have taken this degree perfectly well without any particular trouble to themselves, and I have invariably urged upon them the desirableness of taking it. I knew their circumstances, and knew everything about them. They were not poor; they were not pressed for time; many of them were persons in such a position of life as to render it no great matter to them that they should spend an additional year, or a little more money, at the University. That did not stand in their way; but when I asked them, 'Why don't you take the degree?' they said, 'Oh, why should we take it; you offer us no material advantage from taking it, and, as an honour, it is so small a thing and so insignificant and unknown that we don't care for it. You cannot guarantee us that we shall positively pass, and it is not worth our while to make the attempt. We have already got good degrees and good reputations, and we don't think it worth while to imperil them for a thing that is really worth nothing.'

10,574. How would you propose to remedy that in order to make the degree more attractive?—That is the great difficulty in connection with the matter, and it is what has been occupying my attention almost ever since I was appointed to the chair. There is another thing, however, connected with the University of Edinburgh which I think will enable the Commission to understand this matter, if I bring it under their notice, accompanied by a few facts as to how such matters stand elsewhere. In the English Universities there is, I consider, no Law Faculty at all, and no appreciable teaching of scientific jurisprudence; but if we go to Germany we find that the Faculty of Law stands in a very much higher position relative to the other faculties of the University, and is a very much more important thing in that country than it is with us. In Germany there are in all 21 Universities; these are attended by 16,500 students, who are thus distributed throughout the four faculties—Theology (Protestant), 1565; Theology (Romish), 743; Law, 4678; Medicine, 3567; Philosophy, 5975. From these figures it will be seen that the numbers attending the Faculties of Law in the German Universities are considerably larger than those attending the faculties of either medicine or theology. Now, although I am sure that no one rejoices more than I

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do in the distinguished character of the Faculty of Medicine in the University of Edinburgh, it has always distressed me to find how the Faculty of Law has been pushed aside. The Faculty of Law here relatively to the Faculty of Medicine counts for very little, and has really been put into a corner. In a German University that is not the case at all. There the Faculty of Law is the grand faculty; it is the pre-eminent, distinguished faculty; it is the most attractive to the students, it is attended by persons of the highest social position, and its degrees are the most coveted. Well, it occurred to me that if we were desirous of improving matters here, we might be able take a leaf out of the book of the German Universities in that respect, and I asked myself how comes it that there are so many Law students in Germany? Are there more lawyers relatively to other professional men in Germany than there are here? I found, from any inquiry that I was able to make and from my own knowledge of the country, no reason to believe that such was the case; but the real reason for the pre-eminence of the Faculty of Law in a German University is that that faculty there embraces not only those who are to practise law, but it embraces the wide circle of those who are to exercise the public functions of the State. It embraces those who are to go into diplomacy; those who are to go into all the public offices of the Government in Berlin and the other political centres; those who are to hold all the local civil appointments; in short, it embraces every person who is to be employed by the State in any public duty whatever; and in my opinion that is what accounts for the grand position which a German Faculty of Law holds both relatively to ours and relatively to the other faculties in the German Universities.

10,575. Do they in Germany attract to the Law Faculty students who are looking to those different State departments by teaching either entirely or nearly entirely the same branches of law as we do?—They teach the same branches of law to those who are to practise the law, giving it a wider range, and making it probably deeper and more philosophical. That is a question of degree; but substantially they teach the same branches. With regard to those who are to go into the different branches of the Civil Service, they do not insist upon their following out these studies to the same extent, or adhering to them exclusively. In the case of a man like Prince Bismarck, for instance, I don't suppose he had ever any intention of practising the law, but he went through the course of a law student at Göttingen in this wider sense. Then there was old Stein in a former generation, who was a man trained in the same way. Every man is trained in that way in Germany who has to go before the public as a person exercising responsible duties. It extends even to royal personages. If we had had an arrangement of that sort when the Duke of Edinburgh was here, he would have been in the Faculty of Law. When I was at Bonn, his father, Prince Albert, had just left. There were, I think, three royal princes at the time, and a very large number of persons of the very highest social class in the country, and they were all, I believe, in the Faculty of Law.

10,576. *Dr. Muir.*—Does the Government require from the men who are about to enter into their Civil Service, and to occupy positions of a certain grade, that they should pass through these examinations in the University?—I have made some inquiry about that matter, and Professor Berry has kindly taken charge of the letters I have got with regard to it. I wrote to a number of friends connected with foreign Universities whom I know as colleagues in the Institute of International Law, and I put the question to them which Dr. Muir has now put to me. They have kindly answered my inquiries very fully, and I think the Commis-

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sioners will be pleased with the written evidence they have given. There is not the same value attached to a University degree in the public service that I expected to find, but the whole of the Governments, I think, without any exception, insist upon University attendance generally for three years. They formerly for the most part accepted degrees as sufficient, but centralization and bureaucracy have now come to be so powerful in most Continental countries, and particularly in Germany, that they now rely chiefly on Government examinations. A man having gone through his period of attendance at the Faculty of Law in a German University, does not go through any other course when he quits the Faculty of Law, but he then comes up before a board appointed by the Minister of Public Instruction and is examined. In some of the countries on the Continent his degree counts for something. In Russia, curiously as it may seem, the University degree is accepted by the Government as final; they don't insist upon a second examination. However, I think the information on these points will be better gathered from the answers I have received to the letters which I sent.

10,577. If the Governments don't require a degree, they require the men going into the Civil Service to be examined by Commissioners?—Yes, but they must have gone through a certain attendance at the Universities.

10,578. *Mr. Campbell Swinton*.—What are the branches of law they must study?—I may say that the best book on that subject is that of Robert von Mohl, in which he explains the matter very fully, and argues in favour of having separate faculties for the teaching of social, political, and economical science, separate from the Faculty of Law. In that I think Mohl has not succeeded in carrying his countrymen along with him. There are three of the German Universities—München, Würzburg, and Tübingen, in which there are separate faculties, and a separate Doctor's degree is given for social, political, and economical science. At all the other Universities these subjects are taught in conjunction with the Faculty of Law, and the degree is a branch of the degree of the Faculty of Law. The degree of Law is allowed to be taken either professionally or in this more general way in all the other Universities, and that arrangement, which is the old arrangement, seems still to commend itself to the German mind. In the University of Strasburg, for instance, which is the latest of them all, having been set up since the war, they have reverted to, or rather they have maintained this traditional method, and the degree in social and political science is given by the Faculty of Law.

10,579. Then, do I understand that, in imitation of that, you would attach, say a chair of Political Economy to the Faculty of Law?—Yes; but with reference to the question which you previously put to me, and which I have not yet answered sufficiently, I may mention the subjects that the Germans rank under social and political science, and which they would impose upon a man who is to take a Law degree. They give him in the ordinary law course, first, *Rechts-philosophie*, or the Philosophy of Law, and *Rechts-geschichte*, or the History of Law, which they generally teach in two separate courses of lectures. Under these heads they would give the civil law; for instance, they would give the historical part of it and the political part of it—its influence upon the development of the Roman constitution and upon the downfall of the Roman Empire.

10,580. Have they different professorships for all these branches?—No; not confined to them, but they have so many professors in all the departments that the same set of men can overtake the whole. They divide it amongst themselves as their tastes run in one direction or in

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the other. Where a man has become famous in such a subject as *Rechts-philosophie*, the students run after him, and the others give it up to him. In the practical subjects the teaching is more fairly distributed.

10,581. Where there is so large a number of Law professors in a single University, is it optional with the student which of them he will attend?—Yes; a very great option is given to the students.

10,582. You have already told us that the student must attend the Law course; what are the classes that he must attend?—I have mentioned those which he must attend in Law merely. Then on the political side he must attend political economy; police; statistics, which would include probably comparative jurisprudence; then he has to attend administration, and also technology, agriculture and forestry. The latter is a thing to which, for administrative purposes, they attach great importance.

10,583. How many years does a course of that kind extend over?—Three years.

10,584. To make attendance on these classes compulsory is to a certain extent an exception from the general rule in the German Universities, is it not,—because we have been told that in those Universities a student is left entirely to his own option as to the classes which he will attend?—He must take out a certain number of them, but it does not follow that he attends them. For instance, when I was at Bonn, Dahlmann, the great politician, was the most famous man there; he had just been expelled from Hanover by the king, and he was afterwards Minister of the Interior in the so-called Professor's Parliament at Frankfurt in 1848. At that time he was in this department, and his lecture-rooms were crowded; there were men standing in the passages and jostling at the door to get in; but there were a good many of the other professors, I have no doubt, whose classes had to be counted, but who were not really attended. There is no calling of a roll or taking of tickets or anything done to ensure the attendance of the students.

10,585. And no fees?—Yes. There are fees which are paid to the University; you don't pay any fee to the professor.

10,586. Then a man may even take his degree at a German University, and, still more, pass this examination before the Civil Commissioners, without having in fact attended any classes at all?—He might do it, but so far from the German students not attending at all, they are exceedingly zealous,—the thing is a passion with them. A great deal of nonsense is talked and written in this country about the irregularities of German students, just as there is about the poverty of German professors.

10,587. But can they crowd into the three years all those various subjects that you have mentioned?—Yes, I think so. They don't work in writers' offices as our students do.

10,588. *Dr. Muir*.—Is the examination uniform for men who are intending to enter all the branches of the Civil Service, or is there a variation of the examination according to the branch they are to enter for?—Yes, there is a great deal of liberty given to them in that way. If a man were going into the diplomatic service, for instance, they would be very particular about his international law, and they would also be very particular about his knowledge of the geography, the physical characteristics and material resources of different countries and of the state of the population, and the ethnology, and things of that kind. They would also be very particular about his history.

10,589. *Mr. Campbell Swinton*.—To what extent would you recommend the imitation of the German system in our Universities?—What occurred to me, and the reason why I desired to come here, was that I should

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submit, for the consideration of the Commissioners, whether we could not make the degree of Laws more attractive, and also introduce a new element into the higher education of this country, which, I think, would be a very important one, by bifurcating the degree—by retaining it as it is for legal practitioners, but extending it for others who did not intend to follow the legal profession. For legal purposes, it seems to me, to be very well arranged at present,—I see nothing wrong with it, except that it is not a Doctor's in place of a Bachelor's degree, which, I think, would be more attractive; but, on the other hand, I would allow a man when he came up, either to say, 'I wish to take the degree as a lawyer, with the view of going to the Parliament House,' or, 'I wish to take it with the view of going into Parliament,' or with the view of going into the Civil Service, or it might be into diplomacy, or to hold a foreign appointment, such as a consulship, or something of that sort. In that case I would adjust the examination, which might be done by the Senatus, to suit the character of the degree which the man wished to take.

10,590. And not, I suppose, the examination only, but also the course of study?—Yes, the course of study also. For instance, in the political and economical department of the examination, as I think they call it in Germany, I would strike out Scotch conveyancing. I do not see what a man, who is going to be a secretary of legation at Constantinople, has to do with entries and non-entries and holdings *a me* and *de me*, and things of that sort. I would strike that out altogether, and I would put in political economy in place of it. I would modify the course of Scotch law with reference to such a man. I think it is very desirable that he should know what the municipal system of his own country is, and therefore I would insist upon his attendance on Scotch law; but I would adapt the course to his case, and make it a summer one or a half-winter one, so that he might get the portions which are most desirable for him on easy terms. In the same way with the civil law, I would not impose upon him the same minute acquaintance with the municipal arrangements of the Roman law which the Professors of Roman Law very properly teach here, our own municipal system depending so much upon it.

10,591. In short, you want to make the degree of LL.B. more elastic, and substitute some classes for those which are now required, and apply that to the case of men who were going to be, not lawyers, but civil servants, or to whom the degree was desirable on other grounds?—Precisely.

10,592. *Dr. Muir.*—But by what measure on the part of the State or the Government would this scheme of yours require to be met in order to make these degrees sought for?—That brings me to another matter, with reference to which I would mention a small attempt that was actually made by the University of Edinburgh. Shortly after I was appointed to the chair, the view of the matter which I have just submitted to you occurred to me, not so much with reference to the degrees, as with reference to the kind of men who I thought might be attracted to the University, if we did make the examination somewhat more elastic. I suggested to Sir David Brewster, that we should endeavour to recommend our degree to the Foreign Office, and if it should seem necessary, adapt it to the diplomatic service; and he entered into that view very warmly and even keenly, as he always did into anything that was proposed to him in that way. The late Professor Aytoun and I accordingly drew up a memorial, which was sent to the Foreign Office at the time, in which we narrated what the character of this degree was, and suggested that, in consideration of a man holding a degree, he should be allowed to dispense with his examination for diplomacy, and that one year out of two or three should

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be struck off from his service as an unpaid *attaché*, just as they do for a judgeship. If they give a foreign judgeship to a man, they count his service abroad as five years, in consequence of his being a member of the bar. My friend, Sir David Chalmers, was counted as of five years' standing on this ground when he went to his appointment; and I thought that in the same way some modification might be made on the period of service of an *attaché*.

10,598. Did you get any answer to that memorial?—To that memorial we only got the ordinary civil answer, and the matter was not gone on with by the University.

10,594. Do you think that it is to be expected that the Government should go into any scheme of that kind unless the English Universities went along with you, and did something to put their students on the same footing as Scotchmen?—My view of it is this, that we are in a more favourable position to begin the thing in Scotland, and it would probably be taken up afterwards in the English Universities. I quite agree with you that the experiment would probably be more successful at Oxford or Cambridge than it would be here; but they are not so able to try it as we are.

10,595. I am not speaking of the success of the experiment; I am speaking of the willingness of the Government to take it up and to give these privileges?—I believe they would not give these privileges till Oxford and Cambridge were in a condition to receive them too; for the Scotch Universities are always regarded with much jealousy in England. But we might arrange the thing with Oxford and Cambridge so as to get these privileges which we had really brought within their reach extended to ourselves. Of course it is a difficulty that our Government is so extremely reluctant to adopt any suggestion that comes from abroad; on the other hand, one always supposes that it will dawn upon our Government that something of the kind ought to be done. We all know the great disadvantage at which our diplomatists are placed when they are brought in contact with their colleagues abroad.

10,596. Would any new chairs be required in order to carry out your suggestion?—No, and in that way I think we have a good deal of advantage over most of the Universities. We have a chair of Political Economy and we have a chair of Agriculture. What the Germans call *Staatswirthschaft* takes in a great many departments of physical science. And here we are extraordinarily well manned so far as that goes. But the main point is, that we have here a better Faculty of Law than you have anywhere else in this country. It is more complete; we have a greater number of subjects represented, and from the excellent sound teaching of ethics that there always has been in the Faculty of Arts, it is more possible to teach jurisprudence here than it is almost anywhere else in the country. You can no more teach scientific jurisprudence to a man who does not know ethics than you can teach physics to a man who does not know mathematics. You must, in teaching scientific jurisprudence, take a man's acquaintance with ethics for granted, and that takes in a good deal of mental philosophy. Well, here you can take that for granted, because if a man comes from the classes of Professors Fraser or Calderwood, you may assume that he has a sufficient knowledge of ethics.

10,597. Then, without going into minute details, I should like you to tell us what departments you would give as alternative departments for some of the law classes?—I have already mentioned one that I would give—political economy as an alternative for conveyancing. I would also give the option of a good many of the physical science classes. For instance, for men going into some departments of the public service, an acquaint-

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ance with engineering might be very important, and I would admit that as one of the subjects for examination. There are also the subjects of natural history and geology. If a man has to work as well as to govern an Indian Province, an acquaintance with geology, for the purpose of mining, and the charge of forests, and things of that kind comes to be very important. I would, therefore, allow him to select these or botany, or some of the others, without specifying them particularly. Chemistry I should almost feel tempted to make imperative on all who took the degree on the general side.

10,598. But do many of these branches not come more naturally under a degree of Science than a degree of Law?—I think not, because we wish to combine them with a knowledge of law. I would, of course, insist upon the attendance of the student at all the branches of law, with the exception of Scotch conveyancing, and with a certain modification of the teaching in the chairs of Scotch Law and Civil Law, so that he should be a lawyer, but a lawyer who could turn his attention to political and economical questions.

10,599. In short, your proposal is very much the same kind of bifurcation or trifurcation brought to bear upon the Law degree that has been in various quarters suggested as applicable to the degree of M.A.?—Yes, I have no doubt it is. Then I think any change of the kind which I have suggested might be an advantage to the University in bringing into it a larger number of persons of the kind who are at present mostly educated in England—men of some fortune, country gentlemen, and people of that sort. It might be an advantage to the bar in inducing men of that stamp to continue to go through the Faculty of Law; though the mere practice of the bar is falling off. This kind of thing will not fall off. The occupations connected with the public life of the State will remain permanent, and on that ground it has occurred to me that it might be beneficial to the profession and to Edinburgh as well as to the University, that we should get the training of candidates for these occupations as much as possible into our hands.

10,600. *Dr. Muir*.—Do you mean that it would provide these men with greater openings in life?—Yes, I think it would do that too.

10,601. *Mr. Campbell Swinton*.—Do you think fewer men come to the bar now merely as giving them a certain status and giving them a kind of general legal culture, rather than to enable them to follow out the profession, than used to be the case?—No; on the contrary, I think that class of men keeps up very well. I think that is a pool which is not drying up, and in which we shall continue to catch fish more easily than in any other. I may mention that I never had a better class myself than I have this year, and a good many of them are persons of that kind.

10,602. *Dr. Muir*.—Have you said everything that you consider necessary in order to bring out the practical applicability and the chances of success of your scheme?—I am afraid that I can add very little to what I have said on that point. I submit it for the consideration of the Commissioners. I do not feel confident that men would take advantage of it without more encouragement than I fear we can look for in the first instance; but everything must have a beginning, and we find in Germany, as I have already mentioned, that that is the source from which the Faculty of Law draws its nourishment chiefly. Then another consideration is this, that there is, I believe, no country in the world, except our own, where a man is dropped by the Universities at the point at which he takes the degree of M.A., and where he is allowed to go into Parliament or to go into public life in whatever direction he might choose without any offer being given to him of further academic training at all. In

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every other country that we know of there is something done in addition to what we have here. A course of study is offered to him after his general education is completed, in order to prepare him for his special duties as a member of the State. It is impossible that we can long continue to throw away so obvious and so very attainable a means of advancement.

10,603. But I rather meant to ask you whether you had said everything you considered necessary to induce the Government to take up your scheme?—Yes, unless the Government takes it up for their own interest, and for the improvement of the public service. I see no other inducements we can hold out to them from an academical point of view. All that we can do is to tell our Government what other Governments do, and do with success. One thing that I would like to make clear is, that I would like greater prominence given to academical degrees here. I would hardly propose that State examinations should be introduced into all the departments, because that tends decidedly and clearly in the direction of centralization.

10,604. But at present does the Government not institute examinations for men going into the public service in England?—There are what we call Civil Service examinations, but they are for officials of a very low class. The only high-class public examinations that I know of in England are for getting into the Indian Civil Service.

10,605. Is there not an examination for getting into the Foreign Office?—It is very trifling. There is also a trifling examination for *attachés*, but it scarcely amounts to anything.

10,606. *Mr. Campbell Swinton*.—Either for the purpose of carrying out your views or upon general principles, do you think that any new faculties or degrees ought to be instituted?—Not in the meantime. There certainly ought to be no new faculty, but I would imagine it possible that a new chair or two might be required.

10,607. The reason why I speak of a new faculty is not exactly in connection with what you have been saying, but it has been suggested very frequently that there ought to be a Faculty of Science as distinguished from a Faculty of Arts, and possibly some of your colleagues might hold that many of the things that you have suggested under the Faculty of Law would fall more naturally under a Faculty of Science; in short, that they would rather put a little law into the Science degree, than take your plan and put a little science into the Law degree: what is your opinion with regard to that?—You could do both: you could make the Law degree a little more elastic, so that an LL.B. could choose some scientific course; but every public servant of at all a high class ought to be a lawyer, more or less.

10,608. But it might admit of a question whether a man undergoing some of the education which you have suggested would not be designated equally well as fit for the Civil Service by being called Bachelor or Doctor of Science as by being called Doctor of Laws: don't you think so?—No, decidedly not; I think that law has to do with Government in quite an exceptional manner. You are going to put the laws of the State into the hands of these men to a certain extent, and that belongs to the Law Faculty.

10,609. You spoke, for instance, of men who were going to practise forestry in India; that, certainly, has more affinity to science than to law?—Yes; still if you had a man as the governor of a Province where forestry was carried on, he might have scientific assistants whom he ought to be able to look after; but he is the representative of Government and has to deal with jurisprudence and politics. There can be no high office without that.

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10,610. Still confining yourself to the Law Faculty, what is your opinion as to the recognition of extra-mural teaching?—I think in the Faculty of Law, and so far as I know in all the faculties, I would, as soon as the circumstances of the University admitted of it, throw the whole of the teaching open.

10,611. You know, I suppose, the extent to which extra-mural teaching exists in the Faculty of Medicine at present?—Yes.

10,612. Would you throw it even more widely open in the Faculty of Law?—I think so. I think the German system is a very good one. There you have three grades of professors. The *ordinarius* is the most distinguished representative that can be got of that branch of science, and then there are the *extraordinarii* and the *privat-docents*, who may compete with each other.

10,613. Do these men, the *ordinarius* and the *extraordinarius*, teach really in opposition to one another, or are they not rather a supplement to one another?—They teach in competition, and that is what I think would be the position of affairs here; but I think that if the chairs were sufficiently endowed, there need be no fear of extra-mural teaching. Taking my own chair, for instance, which I know better than any of the others, if you were to endow that chair sufficiently and make it an object of attraction to the kind of man you want to have for it, then I think the man who holds it ought to be able to hold it against all comers. I think it would be well that he should be exposed to that sort of competition, and that any one else, who is a Bachelor of Laws or a Doctor of Laws, ought to be allowed to teach in opposition to him.

10,614. Then you have no apprehension that perfectly open teaching would lead to the adoption primarily by the extra-academic teachers and ultimately for self-defence by the professors of a system of cram?—I have not considered how it would work in that way.

10,615. Does it not occur to you at once that the extra-academic teacher to whom students would go with the view of taking a degree would be very apt to confine his prelections principally to giving the student such information as would enable him to take his degree rather than giving him such general culture as the professor would do?—Yes, I think there would be a danger of that; but our Scotch students do not like cram, and are very much interested in scientific teaching.

10,616. But that objection to extra-mural teaching being perfectly open had not occurred to you?—No, I think that objection does affect it, and requires to be well considered. But, on the other hand, you have this disadvantage in the present system: we all come into our chairs, at least as a general rule, too late in life, or, at any rate, we come into them unprepared. In Germany they have a large class of *privat-docents*, and men who are *extraordinarii*, a large body of trained persons to draw upon when they want to fill up a chair.

10,617. Do you think that such men would start up in Scotland?—I think they would if you endowed your chairs properly, but it depends wholly upon that, and therefore I don't suppose it is an arrangement we can go into at present.

10,618. Then you don't think that open extra-mural teaching could exist unless the salaries of the professors were increased, or unless the professors were made less dependent upon fees?—It could not. In a class like mine, and a few of those classes that must always be small, it could be introduced more easily, because the professors there are less dependent upon fees; but there is another great evil connected with this matter. I don't want to give any special opinion about the endowment of chairs, but I say this without any

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hesitation, that you are not only precluded from training up a young brood of professors like what you ought to have by not endowing your chairs properly, but you are confined at present in the choice of your candidates to persons who have other means of living. They may be persons of large fortune or little fortune, but they must have means of living three or four times as large as what you give for many of the chairs, and that of course limits your range of choice very materially.

10,619. That observation applies more to the scientific departments of law, such as yours, than to the practical departments which are not incompatible with, but unfavourable to private practice?—Yes, they are unfavourable to it, and you will very seldom get a rising man at the bar to accept one of these appointments unless you endow them very much more highly than they are at present. You are, in consequence of the limited nature of the endowments, cut off from the successful men at the bar, who for the practical chairs almost always, and often for the scientific chairs, would be the best men that could be selected. In Germany the very highest men in the law go in for the chairs, but you will never get that here unless the endowments are more liberal. I do not think that if the chairs were properly endowed the throwing open of teaching would endanger the appointments. A man who holds a chair has a very great advantage over anybody else as a teacher, and if he is not able to hold his chair against competition, he being properly endowed, then, I don't think he is fit for the chair.

10,620. But I suppose that unless the number of students is very much enlarged, it is not very likely that any extra-mural teachers will spring up?—With good endowments for the younger men to look forward to, I think it would.

10,621. In short, the matter of extra-mural teaching in the Law Faculty is a matter of theory rather than practice?—I fear it is.

10,622. I believe you have some opinions to express with regard to the condition of the library in the Edinburgh University?—I have a word or two to say on that subject. I have been a member of the library committee ever since I have been in the University, and it has always struck me that the sub-librarians were miserably paid. I have got a note of their salaries here, which I shall put in. The chief librarian is paid £325; there are two assistant librarians who are paid £100 each; there is a fourth librarian who is paid £80, a fifth £70, and a sixth £25. I don't think there is the same call for a very great increase of salary in the case of the chief librarian as there is in the case of the others, because his office is less responsible and less laborious than that of the keeper of the Advocates' Library, for instance, for this reason, that a good deal of the business of the University Library is really done by the library committee, which meets every Wednesday, and superintends the business of the library with great care. It is considered to be part of the duty of a professor to suggest all the new books of importance that come out in his department, and all that the librarian has to do is to have the books there and exhibit them to the committee. The Principal is chairman of the committee, and I may say that Sir Alexander Grant is very attentive.

10,623. The University library committee takes a more personal charge of the library than is done by the curators of the Advocates' Library?—Yes, much, and with much greater skill, because there you have specialists in every department, and when you get a new book it is immediately referred to the professor in that department, so that the librarian has not to judge of them at all. Still I do think that £325 is

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very inadequate for a man in that position. In the case of the others, I think there is a strong case for an increase. When you pay a man £100, or £80, or £70 for such work, being less than you pay upper servants in a large household, you don't get the right kind of man.

10,624. Is it out of the general University fund that they are paid?—I am not certain.

10,625. What class of men is it that you get for these junior offices?—Booksellers' assistants,—lads out of booksellers' shops.

R. BRUCE JOHNSTON, Esq., W.S., Edinburgh, examined.

R. Bruce
Johnston,
Esq., W.S.,
Edinburgh.

10,626. *The Chairman.*—You are a Writer to the Signet in practice in Edinburgh?—Yes.

10,627. You are secretary to the curators for the administration of patronage in the University of Edinburgh?—Yes.

10,628. You were appointed in 1865?—Yes; in succession to my father, who held the office from the origin of the Court in 1858.

10,629. There is a considerable amount of patronage in the hands of this body: can you mention how many of the professors are appointed by it?—I understand there are now thirty-eight chairs, and, including the Principality, there are sixteen of these thirty-eight appointed by the curators direct; eight others are filled by the curators from leets submitted to them by the Faculty of Advocates, or in conjunction with other bodies; twelve are filled by the Crown; one by the University Court and one by Bell's Trustees.

10,630. The last-mentioned is a very recent foundation—the chair of Education?—Yes.

10,631. How many appointments have been made by the curators since you became their secretary?—There have been nineteen in the whole nineteen years since the institution of the Court, which is just an average of one a year. I can speak to the whole period, because from my father being the secretary I have the minute book, and I know all the facts.

10,632. Of course it is part of your duty to attend all the meetings of the curators?—It is.

10,633. I understand they meet only when there is some election to be made?—Yes, or in prospect.

10,634. Are the appointments generally unanimous or the reverse?—I have made an analysis from the minute book, which brings out this result,—that of eleven direct appointments made by the curators out of the nineteen, two only have been unanimous, two have been by a majority of six to one, and seven have been by a majority of one. The average number of candidates on the occasion of each of the nineteen elections may be stated as four. The greatest number was nine and the smallest two.

10,635. Then, as regards those appointments that they have made from leets proposed by other bodies, how does the matter stand?—There were five leet cases out of the nineteen, of which three were unanimous elections, and two by a majority of one. In these leet cases the appointment is made out of a leet of two sent up by the Faculty of Advocates.

10,636. Are there no leets sent up by other public bodies?—I think not. I think the Faculty of Advocates are the only body that send up a leet. There are appointments made by the curators in conjunction with the Lords of Session and the Deputy-Keeper of the Signet, but these are not included in the class now referred to.

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10,637. So that the only case of a leet is in connection with chairs where the Faculty of Advocates have the right to send up a leet to the curators?—Yes.

10,638. And there are only two names in the leet?—Yes.

10,639. But there have been five elections of that kind?—Yes.

10,640. Then in those cases where the curators have the right of election along with other bodies, has the aggregate body been generally unanimous or divided?—I think there has been only one such case.

10,641. There was the case of Professor Sellar, but that was before you became secretary?—I believe that Professor Sellar's was the only case, and that it was an unanimous appointment. I speak from recollection and from knowledge at the time.

10,642. *Mr. Campbell Swinton.*—There was also the case of Professor Tytler?—That was by the Society of Writers to the Signet.

10,643. *The Chairman.*—That was in 1866; can you tell us whether that was unanimous?—I don't remember about it distinctly, but I rather think that the curators had practically no say in that election. They may have had it legally, but I am quite sure they did not think of exercising their right, because it was considered to be a mere form on their part to elect the man for whom the Deputy-Keeper of the Signet was sent up by the Society to vote. The Society had voted in the first instance amongst themselves.

10,644. It was entirely a professional chair?—Yes; and the emoluments being provided by the profession, I think that, although the curators had to sign the commission, they at once elected the man whom the Deputy-Keeper suggested.

10,645. Then when a vacancy occurs in a chair, the patronage of which is in the curators, what is the first step taken towards a new appointment?—On that subject I would suggest that the Act of 1858 is a little defective, and has proved a little troublesome in consequence, because there is no form prescribed for intimating vacancies when they occur. In point of practice, I have very frequently had to take the initiatory steps from public newspaper report. On these occasions I have then addressed a letter to the Secretary of the *Senatus Academicus*, asking if it was the case that the chair was vacant, and requesting him to send me formal intimation of the fact. On other occasions he has done that of his own accord; but there being no obligation imposed upon him under the Act, it is entirely a matter of arrangement between ourselves.

10,646. But I suppose there is no difficulty about that?—No. There has sometimes been a little trouble about it, and perhaps a little delay, but that has been all.

10,647. When you receive intimation of a vacancy having occurred, what do you do?—I proceed of my own accord, as secretary, to call the curators together.

10,648. In short, you call a meeting?—Yes. At that meeting the fact of the vacancy is reported, and in some cases it has been the practice then at once to fix a day for the election.

10,649. At about what distance of time?—That depends a good deal upon the period of the year at which the vacancy has occurred. If it has occurred at a time when it is desirable to make an early appointment, with a view to the new professor being enabled to prepare his course of lectures, a fortnight or three weeks is fixed as the time within which the appointment shall be made. At other times it has been a matter of months, when there was no immediate hurry.

10,650. I suppose that all that is done at the first meeting is to fix a day for election, or is there then any discussion as to the merits of candidates?

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—Sometimes there is. If it has happened that that first meeting has not been held until intending candidates have sent in their applications, and taken means to let the curators know of their qualifications, the curators have frequently at that first meeting had an interim discussion on the subject without coming to any conclusion. I may state that originally it was the practice of the curators before the actual meeting for election to have a preliminary meeting, whether the first or second meeting, at which they freely exchanged their views as to the different candidates, without any curator being held as in the least degree committed.

10,651. You say that was the practice originally?—Yes; but not to the same extent latterly.

10,652. When was that practice changed?—I should say more or less within the last five or six years. Perhaps you will allow me to read the sort of programme of arrangement under which the curators were in the practice of acting, and which they adopted at a meeting in 1864:—‘The curators were agreed in thinking that it would be convenient to continue their practice as heretofore of meeting at a suitable period or periods after the occurrence of a vacancy in any professional chair in their gift, to learn the opinions respectively entertained by the members of their body with regard to the testimonials and qualifications of the several candidates, to take into consideration the opinions of absent members as well as those present, subject to the condition that a majority of the whole be present, and, if less than a majority be present, then to adjourn the meeting, and finally, after having thus ascertained the sense of the whole or the major part, to cause a commission to be prepared, and to circulate that commission for the signatures of all the members.’

10,653. That, you say, was the original practice, or at least the earlier practice?—It was the earlier practice, and I believe it followed upon a difficulty which arose in consequence of a difference of opinion regarding an election shortly before that.

10,654. But you say that practice is not adhered to now?—Well, the curators have not of late years exchanged their opinions regarding the different candidates at a preliminary meeting to the extent indicated by this minute.

10,655. Then latterly has there been first of all a meeting to receive the intimation of the vacancy having occurred, and at that meeting to fix a day for election—does that still continue to be the practice?—That is almost invariably the practice. It has not been universal, but practically it is so.

10,656. Then latterly, as I understand, they have held a meeting to receive the report that a vacancy has occurred, and then they have fixed a day for election, and there has been no intermediate meeting between that first meeting and the day of election?—None.

10,657. So that they have not latterly had the same opportunity of discussing the merits of the various candidates among themselves at any meeting prior to the meeting for election?—Not at any formal meeting. Of course what they may do individually I cannot say.

10,658. The curators are, generally speaking, all people who are either resident in Edinburgh or its neighbourhood, or who are frequently here?—They are.

10,659. There would not be any great difficulty, then, in their holding such an intermediate meeting as we have spoken of?—None, in my opinion.

10,660. Supposing that a number of candidates appear after the first meeting to which you have spoken, how do you deal with them, or how do you bring their claims under the notice of the curators?—The

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candidates take their own means of informing the curators. I cause a paragraph to be inserted in the newspapers intimating the fact that the vacancy exists, and stating a day by which intending candidates are requested to forward any testimonials they intend submitting, and also intimating the day on which it is proposed that the election shall take place; but I may state that that form is in almost every case unnecessary, because all those who are at all likely to become candidates for vacant chairs are the very first to become aware of the vacancy, and to avail themselves, without any hint from me, of the opportunity of communicating with the curators.

10,661. How do they avail themselves of their knowledge? Do they send in a formal claim to you, or do they address themselves to the individual curators?—They address an application to the curators. Sometimes the original of that in ms. is sent to me, although frequently not, but merely a printed copy, and one is sent to each curator.

10,662. You know, I suppose, in point of fact, that there is a good deal of canvassing on the subject?—In some cases there has been a great deal, I believe. In others there has been, I should almost say, too little.

10,663. Do you mean in other appointments, or in the case of other individuals?—I mean in the case of other vacancies that have occurred, whether in consequence of the nature of the chair or of the claims of the different candidates, I am not prepared to say.

10,664. Then, when there is only this one preliminary meeting, and when the candidates address themselves in this way to each individual curator, is there any time or form in which you close the list of candidates?—None; and the curators have always held that the actual election is constituted solely by their signatures to the commission. Hence they have always agreed that the commission, whatever previous vote may take place, shall be signed by all the curators, because the Act makes no provision for a majority. They considered that carefully at first, and came to the conclusion that if not absolutely necessary, it was at all events highly expedient that it should be signed by all.

10,665. But my question rather was this—Before the time of election comes on, is there any time at which you declare the number of candidates to be complete,—in short, when you close the list?—There have been cases where there has been a day fixed by the public intimation for receiving applications, but I am quite sure if applications had come in at the last moment, they would not have been rejected by the curators on that account.

10,666. Even upon the day of election?—No; but no such case has ever actually occurred.

10,667. Then, when you come to the day of election under the more recent practice of which you have been speaking, do you find that much consultation takes place among the curators, or do they generally come with their minds pretty well made up?—In almost every case I should say they come with their minds made up.

10,668. Do you think that under the later practice there is more or less unanimity than there was before?—I cannot say which. The cases in which the majority of one has occurred really range pretty equally over the nineteen years.

10,669. In the earlier part of that period, is it not the case that there was a pretty sharp division between the two portions of the body,—those who were appointed by the University Court, and those who were appointed by the Town Council?—There was perhaps less of that in the first three years. I may state that during the first three years

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the Town Council appointed four of their own number as their representatives: they have never done that since. For one other period of three years they appointed three of their number; but for every other period of three years they have only appointed two of themselves and two extra-municipal men.

10,670. Then since the appointment by the Town Council has been more extended,—I mean since they have appointed fewer of their own number,—do you find that that sharp division between the two portions of the body has ceased to exist a good deal?—No, I cannot say that; because in the first three years, during which alone the Town Council appointed four of their own number, there apparently was more unanimity than there has ever been since.

10,671. *Mr. Campbell Swinton.*—How has the University Court acted with regard to appointing members of their own body or outsiders?—I think very much in the same way as the Town Council has done latterly,—that is to say, partly from among themselves and partly from outside; but I am not absolutely certain of that. The Commission may desire to hear how the majority of four to three, in the seven cases where that occurred, was composed. I find that in two of the cases the majority was formed of the Town Council electors against those of the University Court, but in five others there was a fusion of the representatives of the two bodies.

10,672. *The Chairman.*—Do you think it would be more expedient that there should be an intermediate meeting between the first meeting and the day of election?—I do, or at least that there should be an interchange of opinion at a preliminary meeting. I think if free communication among the curators could be provided for or secured in any way, and they were to announce that no candidate should lodge more than, say, six testimonials, the present mode of constitution of the Court would be unexceptionable.

10,673. *Dr. Muir.*—Are the votes of the curators received by letter if the curators should not be present at the meeting for election?—They are, for the reason that it is the signature to the commission that is regarded as the appointment.

10,674. *The Chairman.*—Let us understand how that is done. Do you mean that at the meeting for election it is not the members present only whose votes are counted, but also those who are absent?—Yes; that has always been the case, and the minute which I read provides for that.

10,675. Do the absent members vote by letter to the secretary?—Yes.

10,676. Then that might happen in the case of a curator who has not been in this country at all since the date of the vacancy?—It has happened in such a case.

10,677. Is there any quorum fixed?—The minute provided that at each meeting at least four members should be present. That is a majority, but the Act makes no provision with regard to a quorum. I may state that Mr. Adam Black, who was a curator for some time, was exceedingly anxious that the curators should be guided by a code of rules which he prepared and submitted to them, but which they did not feel disposed to adopt, because they felt they could not be obligatory either upon themselves or upon their successors.

10,678. Did these rules provide for any intermediate meeting between the first meeting and the election?—They did not.

10,679. Then you think it would be desirable to have some regulations made to fix the way in which the proceedings of the curators should be conducted upon a vacancy occurring?—I think it would.

10,680. What would you propose? Do you think the regulations of 1864 are satisfactory, or would you make any addition to or alteration on

them?—If it could be so done that the curators would be certain to act upon the terms of such a minute as that of 1864, I think it amply suffices for the purpose. My difficulty is, how to secure, even by Act of Parliament, that curators shall express opinions at preliminary meetings; because the curators might then say, 'We have at this moment no opinion to express.'

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10,681. But you might at all events appoint them to meet and give them an opportunity of interchanging their opinions, whether they did it or not?—Yes. That would practically involve three meetings, which indeed has frequently been the practice adopted by the curators; but the members might not unnaturally feel that it was a considerable encroachment upon time to have three meetings. Another way would be to have two meetings, and to hold the first say not until a fortnight or three weeks after the vacancy arises, by which time, in most cases, candidates will have come forward.

10,682. Have the latest elections, say the last three or four, been unanimous, or have there been divisions?—The last unanimous election was in 1869.

10,683. How many elections have there been since then?—Seven.

10,684. Then none of the last seven elections have been unanimous?—None of them. Two of them have been by majorities of six to one, and the remaining five by majorities of four to three.

10,685. Was there in any of these a separation between the representatives of the Town Council and those of the University Court, or were they mixed?—In one of them the majority was composed of the representatives of the Town Council, but these representatives were not all at the time members of the Town Council. They had all been so, however, at one time or other. In the other four cases there was a fusion or mixed division.

10,686. Is there anything more you think it desirable to give us in the way of information?—I may state that a difficulty has arisen, and may arise again, as to whether, when a vacancy has occurred, any change in the constitution or duties of the chair can be made by the University authorities. In one case the curators were asked to delay the appointment in order that that matter might be considered, and that if necessary some change should be made on the constitution and duly put in force, so as to be binding on the new professor; but the curators felt that they were helpless in the matter, and that it was not in their power to postpone the election on that account, even supposing—a matter, I believe, of some doubt—the University Court has, under the Act of 1858, any such power.

10,687. What was that case?—The chair of the Practice of Physic.

10,688. *Mr. Campbell Swinton.*—You say it was not in the power of the curators to delay the election, but there is no time fixed within which they are to meet and make the election?—No. Of course they have a discretion; but they felt they must deal with the chair on the footing on which it had been left in their hands when the vacancy arose; and it being of importance, in their opinion, that a successor should be appointed who should lecture at once, as the session was on the eve of opening, they decided that they ought not to be influenced by the request.

10,689. But suppose that particular case had not occurred, and that the session was not about to open, and that it was not necessary to make a speedy appointment, do you think that if the Senatus or the University Court had said, for any reason, that in their opinion the election should be delayed for a reasonable time, the curators would not have had power to comply with that request or suggestion?—I think they might. There is no obligation imposed on them to fill up a chair within any specified time.

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10,690. *Mr. Campbell.*—Have the curators always been of opinion that they ought to allow voting by proxy?—Always. They don't think they have any power to prevent one of their number from voting in that way.

10,691. *The Chairman.*—Is your office an honorary or a paid one?—An honorary one. I may add that, in my opinion, if provision cannot be made, the effect of which shall be to secure that the curators shall have free interchange of opinion before the actual meeting for election, it would be desirable that the final meeting at which the election takes place should be an open meeting, even although it should result in purely formal proceedings, because in that way I think the sense of responsibility would be increased.

Adjourned.

MONDAY, 12th February 1877—(*Fifty-Ninth Day*).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman.*

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

DR. ANDERSON KIRKWOOD, examined.

Anderson
Kirkwood,
LL.D.,
Glasgow.

10,692. *The Chairman.*—You are a Doctor of Laws of the University of Glasgow?—I am.

10,693. You were Professor of Conveyancing in that University, I think, for five years, from 1861 to 1866?—Yes.

10,694. You are a member of the General Council, and have been so since the passing of the University Act?—Yes, or nearly so.

10,695. And you have been Assessor to the University Court from the year 1867?—I have.

10,696. You have acted as Secretary to the University Court?—Yes.

10,697. That, in Glasgow, is an honorary office?—It is; we have no funds to provide a salary.

10,698. And have been secretary since 1874?—I have.

10,699. Will you favour us with your opinion as to the constitution and powers of the University Court?—As to the constitution, I think there is a good deal of fallacy in much of the reasoning that takes place with regard to it, as if the assessor of the General Council and the assessor of the Senatus, or the other assessors, had any adverse interests. They are all there for the common benefit, and we never hear of anything at the Court as to one being the assessor of one party more than of another. I am, therefore, not so much in favour of any great addition being made to the Court, as most people are,—at least most of our Glasgow friends.

10,670. Do you think there ought to be any addition at all?—I think there would need to be some addition, otherwise the quorum would require to be reduced. It is unworkable at present owing to a quorum of five being required. The University Court is composed of seven members. The Rector never attends, and, if any one is unwell, or from home, it is very difficult to collect a quorum of five. If there is no addition to the

number, I think the quorum ought to be reduced to three for ordinary business.

10,671. Which mode would you prefer,—to reduce the quorum or increase the number?—I think that to increase the number would be perhaps the better way.

10,672. Where would you get the additional member or members?—That is a matter of considerable difficulty. I should be inclined, for my own part, to take some public official connected with Glasgow, such as the Sheriff of the County or the Lord Provost of the city.

10,673. Would you prefer that to the plan which has been suggested by many witnesses of giving another representative to the General Council?—In that case I should have two,—one from the General Council, and one officially connected with Glasgow.

10,674. That would be two additional members?—Yes.

10,675. *Dr. Muir.*—Whether would you prefer the Sheriff or the Provost?—I think the Provost would be the better, for this reason, that the Sheriff would be an appointment for life, which I do not consider a good thing. Now the Provost is elected every three years.

10,676. *The Chairman.*—I suppose, if you had this increase, you would not think it necessary to diminish the quorum?—I would not.

10,677. And you think that, especially for some important business, such as the election of professors, it is very desirable not to have a smaller quorum than there is at present?—I think so. I think that, for the election of professors, and proceedings against professors, you should have the present quorum, even if the Court were not increased.

10,678. *Dr. Muir.*—Many witnesses who have appeared before the Commission recommend that the Senatus should be more strongly represented with a view to the election of professors, and that, where a professor belonging to the faculty to which the election is to take place is not on the Court, an additional representative or a substitute should be called in from that faculty. What do you think of that idea?—I do not think it is a good idea. I think the Senatus is very well represented by the Principal, the Dean of Faculties, and one of the professors.

10,679. *Mr. Campbell.*—Do you not think it would be an advantage, if the numbers in the Court were increased, that there should be an additional representative from the Senatus?—I do not think so.

10,680. *Dr. Muir.*—The idea was that special knowledge of the subject with which the professor to be elected was concerned would be an important thing. That was the ground upon which the proposal was supported?—I should doubt that very much. I should doubt whether it was the wisest thing, because the tendency would be to throw the entire responsibility of the election upon that single individual who was supposed to have this peculiar qualification; and that would be very dangerous.

10,681. *The Chairman.*—Are there any stated meetings of your Court, or do you just meet when business requires?—We meet just as business requires. We have no stated meetings. There were such meetings in the early history of the Court, but they have been long since abandoned.

10,682. By whom are the meetings summoned?—They are summoned truly by the Principal, but through the registrar.

10,683. What is your opinion as to the powers of the Court?—I think these should be better defined, particularly in regard to cases where proceedings are taken against professors. The Court in such cases ought not to be a court of original jurisdiction,—at least, it should not be both the judge and the prosecutor. There should be a formal written complaint at the instance of the Senatus, or a member of the Senatus, or

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one or more students, instead of allowing the Court to proceed upon some *fama* or report which gains currency at the time.

10,684. Have you ever had occasion, during the time you have been a member of the University Court, to take any proceedings against a professor, or with reference to a professor?—Yes. I may remark that the Act provides that ‘upon sufficient cause shown, and, after due investigation,’ we are entitled to censure or suspend a professor or cause him to resign; but it is a very difficult thing to say what would be reckoned ‘due investigation’ or ‘sufficient cause.’ If you could conceive a power of appeal from the Court —

10,685. But there is no power of appeal given by the Universities Act?—None.

10,686. But you think that at common law there might be?—I think it is quite possible there might be. ‘Due investigation’ means something, ‘sufficient cause’ means something, and you must satisfy some Court that you have made that ‘due investigation,’ or had ‘sufficient cause.’

10,687. Can you suggest in what manner these words should be defined?—I think the best way would be to exclude expressly the power of review, because then we should be all the more careful about the kind of investigation, and all the more careful about the cause being perfectly sufficient, whereas, if there was an appeal to another Court, we should require, I think, to have forms prescribed to us, and we should be very apt to say—‘Well, if we go wrong, it will be put right,’ and I do not think that is a suitable thing. The character of a professor might be destroyed by such proceedings.

10,688. You think that if any review on the part of the Court of Session were excluded, the object would be served?—Yes, and probably better served than in any other way. In the next place (still having reference to the *powers* of the Court), I think that in cases under the Representation Act, where our decisions are decisions by three as a quorum, there should be an appeal to the judges of the Court of Session, in the same way as there is an appeal from decisions of the Sheriffs under that Act. My reason is that the decision would, in the first place, possess greater authority; and, in the second place, would secure perfect uniformity in similar decisions in all the Universities.

10,689. You had a case before you, I think, as the Edinburgh Court also had, under the Representation Act, with reference to the right of a person who had become *ex officio* a member of the General Council to remain a member of the Council after he ceased to hold his office?—Yes, and we, by a majority, struck his name off the roll.

10,690. That was the case of the Lord Rector?—No. It was the case of Mr. Orr Ewing, one of the assessors, and of two other *ex officio* members. I think you had a similar case in Edinburgh, and came to the same result.

10,691. Your decision, of course, went upon the terms of the Act. Do you think that the law should be different?—Decidedly I think so. I think the loss of an experienced person, who has been long connected with the business of the University, is a great loss. The case of Mr. Orr Ewing was an example of that; I think it a great loss that he should not be a member of the General Council.

10,692. Or even the Lord Rector, though his experience is not so great?—Yes.

10,693. Have you any other remarks upon the powers of the Court?—Nothing more.

10,694. *Mr. Campbell.*—The duties of the clerk of the Court are considerable?—They are heavy.

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10,695. Your predecessors also discharged the duty without any remuneration?—They did.

10,696. I think one of them had a small allowance for clerks' services?—I do not think so. The late Mr. Andrew Bannatyne, my partner, was the first clerk; then came the Rev. Dr. Sym; then the Rev. Dr. Pearson; and I followed.

10,697. *The Chairman.*—And in every case the gentleman who has acted as clerk has been a member of the Court?—Yes.

10,698. *Mr. Campbell.*—And has discharged the duty without any remuneration?—Yes. It is a laborious duty. I have an experienced clerk, whose time is much occupied with the details.

10,699. *Dr. Muir.*—Then you think there ought to be a salary?—If the University could afford it, I think there should be; in that case I should immediately cease to be clerk.

10,700. What salary do you think would be adequate?—About £50 or so, I think.

10,701. *Mr. Campbell.*—There would be an advantage in having an official clerk who kept his office during a considerable time, and was not liable to demit his office after three or four years?—There would be great advantage. My own opinion is that the Registrar should be the clerk; he is always at hand, and has an office in the University, and is constantly accessible.

10,702. *The Chairman.*—He would probably require some addition to his present salary?—Yes.

10,703. You have given us your views incidentally as to the representation of the General Council; would you now favour us with your views as to the functions of the Council?—It seems to me that these are too meagre, and that they might with advantage be enlarged.

10,704. In what direction?—I think the Council should have a power of adjourning for a short time. At present they have power to adjourn only till a later hour of the same day, but I would give them the power of adjourning for a week, or something like that.

10,705. Do you not think the effect of that would be to throw the powers of the General Council more and more into the hands of those who are resident in Glasgow or the immediate neighbourhood?—I make no doubt it would have that effect; but suppose that at present a question of importance is raised, and raised incidentally, as sometimes happens, an adjournment till the afternoon of the same day gives no one time to consider its bearings at all, or to come to any conclusion even when there is no difference of opinion. If the Council had power to adjourn for a week, and to appoint a committee meanwhile to consider and report at the end of the week, there would be much more consideration given to the subject.

10,706. But you do see it would have the effect of throwing the power more and more into the hands of resident members?—It would, indeed. It is very difficult to prevent that.

10,707. Do the meetings of the Council at present consist principally of those resident in Glasgow and the neighbourhood?—I think so, unless when there is a contest of any kind,—for the assessorship, for instance,—and when political considerations influence the Council. When Mr. Bannatyne was elected assessor (there being a contest), there were 202 present, which was regarded as a very large meeting. I may mention that Mr. Bannatyne, when a member of the Court and its secretary, wrote on 29th March 1860 to Professor Berry, secretary to the then University Commission, saying:—‘It appears to me that without the powers before mentioned,—that is, the power of adjournment and the

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power to appoint a committee to mature business,—‘it would be hardly possible with the requisite caution and deliberation to consider in terms of the Act any question affecting the wellbeing and prosperity of the University.’ He was speaking under the authority of the University Court at the time; but Professor Berry’s answer was that there was not power under the statute. I think that the Council should have power to appoint special committees.

10,708. To act in their name?—To act in name of the committee, not to act in name of the Council. I would have no delegation of the powers of the Council, but only the power of investigating and reporting.

10,709. In point of fact, they do that?—They do it sometimes, but they do it always with the feeling that they are going beyond their province.

10,710. The Ordinance says that the Council cannot delegate any of its powers to a committee, and the only object for which it recognises the appointment of a committee is to prepare business?—Yes, to mature business.

10,711. The terms are—‘It shall be in the power of the General Council to appoint a committee or committees at one meeting to arrange or prepare business for a future meeting, but it shall not be in the power of the General Council to delegate any of its functions to a committee or to act by means of a committee,’—and you agree to that remaining? You do not think they should have power to delegate their functions or to act by means of a committee, but that they should have power to make inquiries through a committee, so that a subject may come up fully matured for the consideration of the Council?—Yes.

10,712. And that is really what they have done?—That is what they have tried to do.

10,713. And they have appointed such committees, who have held conferences with committees of sister Universities?—Yes.

10,714. Does that exhaust what you have to say as to the functions of the General Council?—Yes.

10,715. You do not think they should have, as has been sometimes suggested, a power of taking the initiative further than they have just now by bringing representations before the Court? One witness suggested they should hold a position similar to that of the House of Commons,—that they should carry resolutions which should require to be confirmed by the University Court, and not merely make representations to the University Court?—I think it is better that they should simply make representations.

10,716. Then you still less would approve of what others have suggested, that they should have an absolute veto on the proceedings of the Court?—I do not think they should have.

10,717. I suppose you agree with those who think that so large a body, and one so much dispersed over the kingdom, is not fitted to be an administrative body?—I think it is not.

10,718. *Mr. Campbell.*—It has been proposed that the Council should have three assessors to the University Court, not for the sake of improving the constitution of the Court, but for the sake of giving the Council more interest in University affairs. Do you think that would be of advantage to the Council?—I do not think so. I do not think it would create a greater interest in University affairs.

10,719. And it has been suggested that if there were three assessors, then, in order to prevent it becoming a party matter, it would be desirable to introduce the minority principle, and give each member of the Council only two votes.—I do not think that would be a good plan at all. I

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think that if you have three additional members the *Senatus* should get one of them.

10,720. What would you think of having three assessors from the Council and two from the *Senatus*?—I think it would make the Court much too large.

10,721. In the case of Glasgow it would make a Court of ten, or virtually nine, the Rector being a distinguished gentleman who is not likely to attend?—Yes. I may say that at one time I was of opinion that the Court should be increased to ten, and my idea then was that the Chancellor and the Member of Parliament for the University should be added to the Court; but on fuller consideration I have come to think that what I have suggested to-day is the preferable plan.

10,722. *The Chairman*.—And you think that the efficiency of the Court and the responsibility of the members is increased by their numbers being limited?—I think so. I should perhaps have said that I do not think they ought to be allowed to vote by proxy in the election of professors.

10,723. Has that been the custom with you?—No, it has not, but there has been a tendency in some other Universities in that direction. I think that in the election of professors and proceedings against professors, the Court should have an opportunity of discussing each others views.

10,724. Do you think that in any University the Court has thought its members entitled to vote by proxy? Is that not rather regarded as applicable to the University which has curators?—Perhaps it is.

10,725. Because the curators are not looked upon so much as a court as a body of trustees, and I suppose that, at common law, a member of a body of trustees can act by writing without being present, whereas a member of a court cannot do so?—Yes.

10,726. In exercising University patronage, your Court has always made a point of discussing freely and confidentially amongst the members?—Always.

10,727. And probably at more meetings than one before the election takes place?—I think so.

10,728. Do you think it would be of advantage if, as has been suggested by one or two witnesses, the Court should sit with open doors, especially on the occasion of the election of a professor?—Certainly not. I do not think they should sit with open doors. That question was discussed many years ago between Lord Barcaple on behalf of the Edinburgh Court and Mr. Bannatyne on behalf of the Glasgow Court, and they both came to the conclusion that it would be exceedingly undesirable.

10,729. Inasmuch as it would restrict, I suppose, the freedom of consultation?—It would restrict the freedom of consultation, and subjects might come up which were not fitted for the public ear, or were not sufficiently digested for the public ear; and, moreover, it would waste a great deal of time by leading to set speeches.

10,730. Are there any occasions on which the Court ought to sit in public?—I do not see the least objection to its sitting in public on questions under the Representation Act.

10,731.—Take the case of an investigation into the conduct of a professor, where the Court is really sitting as a Court of Justice, would it not be rather consistent with analogy in similar cases that the Court should be public?—It is consistent with analogy, but it would be very injurious to a professor to have his character canvassed and criticized in public.

10,732. Will you favour us with your opinion as to the course of study and regulations for graduation in the different faculties?—I have not

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much to say about that. The only thing that strikes me, is with respect to the words of Ordinance 18, section 2, which says: 'It shall be in the power of any student who has given attendance during one or more sessions on the of course of study in any Scotch University, to complete his course of study by giving attendance during the remaining sessions of the course in another Scotch University;' and then at the end—'Provided also that no student shall be admitted to a degree in any University unless he has given attendance in such University during the last two sessions of his course.' Now it is found in practice, that it is inconvenient to restrict them to the last two sessions, and the words 'the last' should perhaps be struck out. If he gives attendance at the University that qualifies him during any two sessions of his course, that should be sufficient. My attention was called to this matter by the Registrar, who says: 'This is a hardship. I have known students who attended four sessions in Glasgow and one in Edinburgh, but who, though they had completed their Arts curriculum, had not the above qualification, and were unable to proceed to a degree.'

10,733. Would not your suggestion as to allowing them to take any two sessions at the other University enable a man to take a degree in both?—I do not know it would be any disadvantage to him to do so. But that could be easily regulated.

10,734. It would give him a double electoral privilege?—That could be easily provided for.

10,735. By providing that he should not be a member of two Universities, but should select which of them he should be a member of?—Yes.

10,736. Do you think that any new faculties or degrees are required?—I have nothing to say on that point, except that it appears that the degree of B.L. does not confer such privileges as law students think sufficient. They think they should be admitted as law agents without further examination when they take the degree of B.L.

10,737. But that is scarcely a matter for the University authorities?—It is not for the University authorities, but it is a matter of observation.

10,738. It is a matter which requires to be regulated by the Court of Session?—Yes.

10,739. Have you formed any opinion as to the expediency or the reverse of introducing entrance examinations?—I have formed a very decided opinion in favour of entrance examinations in the classes of Latin, Greek, and mathematics. It seems to me that the professors waste their time in teaching the elements instead of carrying on the students to a higher education in these branches, and that entrance examinations would, in a great measure, prevent that in the course of time. But at first, until we see our way in reference to endowed schools, the entrance examinations would require to be very judiciously gone about.

10,740. And not very stringent?—Not stringent at first. And all the Universities would require to adopt the same standard.

10,741. Do you think that at present there is sufficient provision in the country for secondary education to make anything like an efficient entrance examination practicable?—That remains to be decided. I think it is very doubtful, and I think also that ample notice should be given of the subjects of examination, so that teachers in the country might see six months beforehand to what subjects they should direct the attention of the young men designing to enter the Universities.

10,742. Would you make any exception in favour of students who go to the University at a somewhat advanced age, and who then, perhaps, for the first time, form an anxiety to have a University education?—Yes, I think that such cases should be tenderly dealt with and fairly considered.

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There are not very many of them, and the same strictness should not be observed in these cases, because any person who does go at an advanced age shows that he has within him a strong desire for University education.

10,743. And also, from the greater maturity of his intellectual powers, he rapidly makes up his lee-way?—He does.

10,744. It has been suggested to us that, in order to meet these and similar cases, there should be no entrance examination for the first year, but that the first year should not count as a year of attendance with a view to graduation, and that, at the end of the first or beginning of the second year,—that is, at the entrance to the senior classes,—there should be an entrance examination, applicable both to students who have attended the junior classes and to students who may come direct from the country. What do you say as to that?—I think there is a great deal in that suggestion. I am not sufficiently conversant with the matter to form a decided opinion, but it seems to me there is a great deal in it.

10,745. And if such a scheme were adopted, it might have the result of eventually dispensing with the first classes altogether when secondary education came to be in a more efficient position?—It might, and that truly is the thing to be ultimately aimed at.

10,746. *Dr. Muir.*—To dispense with the first year's classes?—Yes. If we could be sure that at the endowed schools the students were carried forward as far as the first classes in the University, they would be prepared at once to enter the senior classes.

10,747. Either at the endowed or primary schools, because there are some parts of the country where it would be difficult for students to find an opportunity of going to secondary schools?—Yes.

10,748. But you are aware that the tendency of recent legislation has rather been to discourage the teaching of the higher branches in the primary schools?—Yes, and that is a very serious matter.

10,749. *The Chairman.*—Do you think that any new professorships or lectureships are required in the University of Glasgow?—I can speak only with regard to the Legal Faculty, and I think it is very desirable that that faculty should be made complete in order that the students of law, who are now becoming numerous, should be able to take the degree of LL.B. in Glasgow without requiring to go to Edinburgh. This would necessitate the creation of new chairs of Public Law, Constitutional Law and History, and, I think, Civil Law also. The great matter is to get the students to cultivate law as a science, if possible. The tendency of all recent legislation, so far as law is concerned, has been to make students imagine that they understand it without study; everything is abbreviated, everything is assimilated, and so they think that if they go through some elementary course of law, they have got everything they need for practical purposes; but they will find such a stinted and crude legal education a very great disadvantage to themselves in after life, and to the public also. Of course, it is a serious matter to found new chairs without being sure that you would get an adequate number of students to support them; and very likely it might be more expedient to begin with lectureships, which could be discontinued if it were found that a sufficient number of students was not attracted to them.

10,750. And those lectureships, of course, would not require so large an endowment as professorships?—No, and they would not be permanent.

10,751. What kind of endowment would be necessary for each of those lectureships so long as they existed?—I should think £100 a year.

10,752. You think that men could be got to lecture upon those branches for £100 a year and the fees?—Yes, I think so. The chair of Conveyancing has only £100 a year.

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10,753. Is it largely attended?—Largely.

10,754. I am afraid that students will be apt to look upon it, from utilitarian views, as more attractive than the scientific chairs?—Undoubtedly; but you will find that a good many students who have not the means of going to Edinburgh are really desirous of cultivating the study of law.

10,755. And you think that even for men who are not looking to the bar, but are intending to become country practitioners, a more scientific knowledge of law is desirable?—I think it is very desirable.

10,756. *Dr. Muir.*—In the foundation of those lectureships would you have in view exclusively the advantage of the legal profession?—Yes.

10,757. Because it has been suggested here that the degree of LL.B might be somewhat modified so as to become a test of suitability for employment by Government in a variety of departments, such as the diplomatic service, and so on.—Advantage could be taken of the classes for that purpose.

10,758. *Mr. Campbell.*—The institution of such lectureships as you propose would give the Glasgow law students the means of acquiring knowledge in all the branches necessary for the degree of LL.B.?—Yes.

10,759. *The Chairman.*—Which they cannot at present acquire without going to Edinburgh, in consequence of Edinburgh being the only University thoroughly furnished with a legal Faculty?—Yes. It may be said there is no need for a lectureship in Civil law, because Professor Berry teaches Civil law as well as Scotch law; but Scotch law is so wide a subject that he ought to be at liberty to devote his whole time and mind to it.

10,760. You think it is too much to expect any single professor to be able to teach efficiently both Civil law and Scotch law?—I do not think it is possible to do it well.

10,761. There have been some questions in Glasgow,—have there not,—as to the quarter in which the power to create new chairs should be vested?—Yes. There were two new chairs founded recently in Glasgow,—the chairs of Clinical Medicine and Clinical Surgery,—both endowed by private individuals; and the question then came to be, who had the power to found them? It was held, whether rightly or wrongly, that the Senatus had the power, with the concurrence of the University Court, and that the Crown need not be consulted in the matter, because the Crown was not contributing anything to the chairs.

10,762. But has not the Crown an interest, in this respect, that the man appointed to one of these chairs may eventually come to claim a retiring allowance from the Crown?—Yes. I think the Crown in some way or other should be consulted in reference to that point, because when he comes to claim a retiring allowance the Crown may say: 'We never heard of this chair,—at least we have no official cognizance of it, and we did not assent to its foundation.'

10,763. You are not aware that the Crown has ever threatened to interfere?—No; quite the reverse, I think.

10,764. The foundation of the chairs in Glasgow was intimated to the Home Office?—Yes, and the intimation was acknowledged.

10,765. Do you think there is sufficient provision for assistance and apparatus?—I do not think there is at all sufficient provision. It is a pity that any little funds the Senatus has left over could not be preserved for the purpose of improving the apparatus, but the interest on the debt is such an incubus that the surplus funds of the Senatus, little though they be, are diverted from University purposes to help to keep down the interest on the debt.

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10,766. And they do not even succeed in paying the interest?—No.

10,767. Do you think any change is required in the length of the University Sessions?—I do not think so. There have been many suggestions in regard to that, but the disadvantages attending a change seem to me to be greater than the advantages.

10,768. The present length of the session is most suitable, on the whole, for the state of the country, and most convenient and advantageous for both professors and students?—So far as I can see it is.

10,769. What is your opinion as to the recognition of extra-mural teaching?—I think it creates a healthy competition and should be encouraged very much.

10,770. In all the faculties?—I think so. I see not the least objection to its adoption in any faculty.

10,771. Of course, under proper restrictions?—Certainly. That is to say, the lecturer must be thoroughly competent for his duties, must have a complete apparatus, and must not charge lower fees than the University does.

10,772. You would require the recognition by the University Court of such teachers?—Yes, and not only so, but the approval of the Chancellor in cases where the chairs are the same as any chairs in the University.

10,773. Have you ever considered the question, or do you apprehend that the introduction of extra-mural teaching, say in the Faculty of Arts, would lead to a system of cram,—that the extra-mural teachers in the first place, and probably the professors ultimately, would think more of fitting their students for examination than of promoting their general culture?—There is an evil always attending that, like everything else, but I do not think that much harm is to be apprehended. Indeed, I do not expect competition except in the Faculty of Medicine. I do not think there would be any in the Faculty of Arts or in the Faculty of Law, but in the Faculty of Medicine there will always be competition.

10,774. And you have it at present?—We have, to a great extent.

10,775. Would you have it to a greater extent?—It is almost unlimited.

10,776. No; a certain portion of the course only may be taken extra-murally.—I would not extend it in that respect. I think the student should take part of his course in the University. I do not think there should be any violent change in that respect. But the Court had some difficulty at one time as to whether certain parties should be recognised, and it was then thought they should not be. That rule has been altered, and, in my opinion, altered beneficially.

10,777. It rests with the University Court to say who should be recognised?—Yes, subject to confirmation by the Chancellor where the chairs are the same. I may say that the cases I refer to were those of the lecturers in the Andersonian University, of which there was at one time considerable jealousy in consequence of the use of the name 'University.' The result was that the University Court, when the Lord Justice-General was Rector, resolved that it would not sanction extra-mural teaching in an institution which assumed in the same city the name of 'University.' That rule was followed for a considerable time. But the question came up before the University Court more recently, and we came to a different conclusion. We were influenced by several considerations. The first was, that the Medical Faculty in the University had changed its opinion on the subject; and they were the parties interested. Formerly they had maintained there should be no recognition of these lectures at the Andersonian University. In the second place, we were, in point of fact, drawing our professors from that institution, and

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it seemed very strange to say that we should take them into our University, and yet that their lectures were not to be recognised as qualifying for graduation. In the third place, public opinion—and we were greatly beholden to public opinion for money—had changed so much that parties positively refused to give us money if we did not alter our regulation with reference to the Andersonian, which with certain parties is a favourite institution. Upon these grounds we came to the conclusion that it would be better to alter the rule. Further, the retention of the name 'University' was not desired by the Andersonian lecturers. Their difficulty was this: they were perfectly willing to drop the name, but they could not get the patrons, or directors, or managers, to let them do it. The managers would insist upon putting 'Andersonian University' at their advertisements. The lecturers themselves in their private advertisements did not use the term 'University,' and are very thankful that it is now proposed to introduce a Bill into Parliament to effect certain improvements in the institution, and amongst other things to alter its name to 'Andersonian College,' so that all difficulty on that head will be removed.

10,778. Have you any remarks to make with regard to the election of University officers?—I think that in the election of Rector the voting by Nations ought to be abolished.

10,779. And that there should be a vote by a general poll, as in Edinburgh?—Yes.

10,780. Otherwise, you would not make any change in the election of Rector?—I think not.

10,781. Or in any of the others?—I think not.

10,782. Do you think that the emoluments and retiring allowances of the Glasgow professors are adequate?—Very far from it, I think, in many cases.

10,783. In what way would the emoluments be best increased,—by additional endowments, or by an increase on the fees?—I think by additional endowments would be the better way.

10,784. Do you not think the fees might be increased?—An increase on the fees would be a terrible tax upon the students. Endowment ought not to be very difficult. The endowment of the Scottish Universities is not a great matter in point of money.

10,785. Can you give us any idea to what extent the emoluments should be increased, and what you think would be a suitable endowment for a professor?—I think no professor should have less than £500 from his endowment and fees together. I would not at all like to see any increase put upon the footing, that if his income was less than £500 there should be an endowment to make it up to that sum, because then he would be tempted to neglect his students and would not care whether he got fees or not. It would be better to calculate what additional endowment, with a fair average of students, would give him £500.

10,786. Would you not draw a distinction between those chairs, such as the medical ones, where the professor has the means of increasing his income otherwise?—I do not think so.

10,787. You think his University emoluments should be adequate, independent of the consideration whether he has any other means of livelihood?—Yes. Another very important point is this, that where a professor is positively disabled by sickness, he should not be allowed to go on teaching by a substitute because he has not earned a sufficient retiring allowance.

10,788. Is that not rather dependent upon the resolution of the University Court, whether he is allowed to teach by substitute?—Yes;

but the University Court never likes to interpose. It is a very hard case to deprive a man of his income.

10,789. And you think this unwillingness would be removed if the retiring allowance were more adequate?—Yes.

10,790. Do you think that after a certain age or a certain period of service a man should be entitled to retire upon a suitable allowance, without being obliged to prove inability or without inability being established against him?—I think that is very doubtful,—ability varies so much with different individuals. One man is able to work up to seventy-five, while another is not able to work after sixty-five or seventy.

10,791. *Mr. Campbell.*—You do not think that a man, on arriving at a certain period of life or of service, should have a right to claim retirement, without any other reason?—I am not prepared to approve of that.

10,792. *The Chairman.*—You think that before claiming retirement, he must show he is to a certain extent disabled?—Yes, and he will be able to do that in almost every case.

10,793. Have you considered to what extent you would increase the retiring allowance in the ordinary case?—If the salaries of the professors were increased the retiring allowances would be proportionally increased, and that would so far accomplish the end.

10,794. Is the mode of appointment to bursaries and other foundations in Glasgow satisfactory?—It is quite satisfactory, so far as it is done by competitive examination; but there are instances in which that is not done.

10,795. You have some valuable presentation bursaries?—Yes.

10,796. And the presentation bursars are not even subjected to any examination?—None whatever.

10,797. Do you think that such evil as attaches to them would be removed if the presentees were necessarily subjected to an examination?—I think it would.

10,798. You do not think it would be fair to say that poverty or necessity should form no element in a man's claim to receive a bursary?—I do not think so.

10,799. We shall receive, I suppose, returns which will instruct us fully as to the financial position of the University; but we shall be glad to have any observations that occur to you upon that subject?—The main question is as to the debt with which the University has to contend, amounting to £44,000 at this date (12th February 1877).

10,800. The debt upon the buildings?—Upon the land and buildings. It is partly a mortgage upon the land, which was in existence when the land was purchased, amounting to £25,000. The remainder, £19,000, has been obtained from the Bank upon overdrafts. The interest amounts to about £2000 a year. The accumulation of interest from 1874 to 1876 was £5000, added to the principal. To reduce the interest the Senatus contributed £2000, in two sums I think,—but it is hopeless to get rid of the debt, and of course hopeless to prevent further accumulation of interest, unless the public come forward again with a subscription, or unless Government interposes.

10,801. Government has already contributed largely?—Yes, very largely.

10,802. *Mr. Campbell.*—The depressed state of trade of late has delayed an appeal to the public?—Yes.

10,803. One cause of the debt being so great has been the effort that was required for the Western Infirmary?—Yes.

10,804. And though that appears to be an object outside the

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University, was it not really so mixed up with the University that it would have been a calamity to the University if the Western Infirmary had not been completed?—It would. The Infirmary was quite indispensable to the University, and there was £55,566 got from the public for the Infirmary in addition to what was got for the University buildings. The amount got from the public for the University buildings was £140,000.

10,805. *The Chairman*.—But the real origin of your financial difficulties was that the estimates were largely exceeded, owing to the unexpected rise in the price of labour?—That has been said, but it is not true to the full extent to which it has been said. The price of labour was not of itself the only cause, because the estimates were also largely exceeded in consequence of accommodation not having been foreseen and provided for.

10,806. *Mr. Campbell*.—There were large additions made to the buildings beyond the original plan?—Yes.

10,807. Were there not serious changes also required on the foundation?—Yes, but that did not affect the estimates much. The additions and alterations amounted to £25,000, and the fittings not provided for in the estimates, £21,000. An equally serious question is the question relating to the revenues of the University. About one-half of the revenues are derived from teinds, and that affects the revenue in two ways. In the first place, it is not a uniform income, because the amount of the teinds is dependent upon the fiars prices, which are constantly fluctuating. In 1864, for instance, the fiars price of meal per boll was 15s. 6d., and in 1874, 23s., or a difference of 50 per cent. Thus the income is not steady; it is subject to fluctuation. In the next place, it is burdened with the ministers' stipends, and the augmentations of stipend have increased from £1075 in 1864 to £1900 in 1874.

10,808. *The Chairman*.—What remedy would you suggest for that?—It is one of those things that Government must take in hand. They must take over those revenues and fix a sum in lieu thereof. There is no other way of doing it.

10,809. And the augmentation is always going on?—Yes. Part of the revenue is derived from Govan parish, which is close to Glasgow, and there will always be augmentations there; and the same with regard to Renfrew, which is close to Paisley. I anticipate that in the course of a few years those revenues will be still more materially affected. There is no mode of supplying the deficiency. With regard to the debt, it appears to me that if Government do not see their way to help us to pay it off, they should lend us money. The Commissioners of Public Works should lend us money at a reduced rate of interest to keep down the accumulation of interest. I suggested that a considerable time ago to some Members of Parliament, and they said there was no precedent for such a thing. But there is a precedent. By the Act 5 Geo. iv. chapter 36, power was given to the Commissioners of Public Works to make advances to the Colleges of Oxford and Cambridge for twenty years. Of course Government is very apt to ask for a precedent in such a case.

10,810. Is there any other subject on which you have any remarks to offer?—Nothing else.

Dr. JAMES BROWNING, examined.

10,811. *The Chairman.*—You are a Master of Arts and Doctor of Laws, both of the University of St. Andrews?—Yes.

10,812. And therefore a member of the General Council?—Yes.

10,813. Have you yourself been practically engaged in teaching?—I have, for nearly forty years. I was at one time Classical Master in Watson's Hospital, then Classical Master in the Collegiate School in Glasgow, then I had an establishment in Rothesay, after which I was at Peebles, and for the last ten or twelve years I have been engaged in teaching in St. Andrews.

10,814. You were specially appointed by the General Council to represent their views upon certain points?—I was simply appointed to represent the opinion of the Council that it would be advisable to restore the degree of B.A.

10,815. Were the General Council unanimous in their opinion on that subject?—At the meeting at which I was appointed, there was no dissent expressed by any member.

10,816. How many members were present?—There are generally very few members present at our meetings of General Council. There might be twenty-five, which is about the average attendance.

10,817. And so far as their opinions could be gathered, were they all of opinion that the degree of B.A. should be restored?—Yes.

10,818. And you concur in that opinion?—I do.

10,819. What are your reasons for thinking so?—I think there is a growing tendency to ignore or undervalue University instruction in some subjects formerly deemed essential to a thorough education, and a consequent necessity for the Universities doing something to retain their hold over the intelligence of the country, and to satisfy the demand, necessitated by the expansion of human knowledge and the variety of human pursuits, for a less restricted and more compendious course of study than that hitherto required for a University degree.

10,820. That does not necessarily point at the institution of a lower degree, does it not rather point at a greater elasticity being given to the degree of M.A.?—Partly so; but I am referring also to the fact that, of the young men who come up to St. Andrews, many do so not with the intention of completing the usual curriculum, but with the intention of having a certain amount of University culture,—attending the University for one or two years, or three years at the most. On looking over the number of students who have attended the University during the last twelve or fifteen years, I find that perhaps one-third of those who have come up have been there for only one session, and that in the course of the second and third years so many drop off that in the fourth year there are present perhaps not one-third of those who were present during the first session,—thus showing that there is a tendency on the part of the students to leave before the end of what is considered a complete course in Arts. It appears to me that, if you were to offer some such recognition as the B.A. degree, they might remain for at least two years at the University, and would study harder than there is any inducement to do when there is no prospect of a University recognition at the end of their course. Not a few also may, for the same reason, refrain from attending college for even a single session.

10,821. What curriculum do you propose for such a degree?—Two years in the event of their passing an examination entitling them to enter

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upon the second year's classes, and three years in the event of their not passing such an examination. At present a student may pass an examination and attend the second year's classes, and I think that after two years' attendance he might take the degree of B.A.

10,822. That would be one year less than the curriculum for the M.A. degree?—Yes.

10,823. What amount of attendance upon classes would you require?—I think the candidates ought to attend the classes of Latin, Greek, mathematics, logic, and moral philosophy, or classes requiring an equal amount of study.

10,824. That would be nearly all that they require for the M.A. degree?—All, with the exception of natural philosophy and chemistry.

10,825. Your University is peculiar in requiring chemistry?—I believe so. But I should not like to confine them to the old course. There are a number of our own students—young men with whom I have spoken—who do not care to pursue their curriculum in a literary direction, but would prefer after a time wider scientific instruction. The tastes of others, again, may lead them to a wider study of language and philosophy; and I think means might be taken to meet the views of both. Instead of Greek, for instance, which is not very popular amongst scientific aspirants, those young men might have the option of taking natural philosophy, chemistry, some branch of natural history, or some higher department of mathematics; while, on the other hand, instead of mathematics (in which otherwise clever men often fail to understand the elements) there might be a choice of history, philology, or a modern language.

10,826. Do you refer to men who have been already examined upon Greek at the entrance examination?—I would not insist upon an entrance examination in Greek for such students. I know there is very great disinclination on the part of many lads, otherwise studious and inquiring, to learn Greek at school. At the same time, I do not think a young man should be allowed to enter the Greek class unless he is able to pass a thorough examination on Greek grammar at all events. No student, indeed, should be allowed to enter the classes of Latin, Greek, or mathematics, unless he has passed through school drill preparing him for an advanced class. In mathematics, for instance, he should have learned so much at school as to be master of the idea of proportion, and even of trigonometrical ratio; because, in order to a clear understanding of these principles, one requires to undergo school drill. The mere explanation of such principles in the cursory way for which a professor has time, is not sufficient to impress upon the great majority of minds their full meaning. Most lads require the drill of a school before they can apprehend them, and before they can enter such a class as the mathematical class should be with advantage.

10,827. Do you think that the secondary education of the country is in such a position that that preliminary training in Latin, Greek, and mathematics could be obtained at school?—I think it is, or might be, were there a proper entrance examination. I think the reason why our students are not equal to what they should be when they enter college, is not that our secondary education is insufficient, but that they have the power of entering at any time without examination, and of leaving school before they are considered by their teachers qualified to enter the University. I know that, in my own experience and in the case of the Madras School, two-thirds of those who leave us do so before they are deemed fit for the University. We think they should generally have another year with us in order to enter college with effect. The present

system does great injustice alike to our Universities and to our secondary schools.

10,828. But are there not some young men who come to the University without having been at school at all—who only think late in life of taking the benefits of the University?—Of course there are, and perhaps an exemption might be made in the case of young men who have passed the age of nineteen or twenty; but younger lads ought to be obliged to pass an examination in certain preliminary subjects. They ought to show that they can write the English language correctly,—that they are thoroughly masters of arithmetic, vulgar and decimal fractions, that they know the Latin grammar thoroughly, and are able to translate from the Latin such an author as Sallust or Virgil, and to translate from English into Latin; and, in mathematics, that they are master of the first six books of Euclid. I know it is not usual to find young men able to go through the six books of Euclid, but I know it is possible to make them master of the six books, and even of trigonometry, after being two years at school; and you must prepare the pupils for that examination. Such an examination should not be easy even now, and it should become more and more difficult until the professor be relieved of the drudgery of teaching what any decent teacher of a secondary school is perfectly competent for. There may be some opposition to such rigour at first; but, if you say to a young man of fifteen or sixteen, 'You cannot enter the University till you pass this examination,' it will induce him to pay more attention to those subjects than he does at present. It is true we have very few efficient teachers of mathematics in Scotland, because it is difficult for a teacher to make the subject interesting to a boy, and lads can slip into college without it; but we have such teachers, and I know they can qualify any one—unless he is perfectly devoid of the mathematical faculty, of which there are instances—to enter upon the second year's course at the University at once, and thus to have a more extended course than they can have at present.

10,829. What would become of the students who are inhabitants of those districts of the country where no such teachers exist?—I do not see any reason why our primary schools should not be able to carry them forward, if proper arrangements are made and inducements held out.

10,830. Do you think that the primary schoolmasters throughout the country could do it?—Well, the Education Act and Revised Code have meantime called into existence a less thoroughly educated class of teachers. We hope that our primary school education will rise to such a position by and by, that the primary schoolmasters will be fit for such work.

10,831. In the meantime, it has rather sunk than risen?—There is no doubt that at present our primary education is lower a great deal than it was twenty or thirty years ago. When I was at college a great many students came up from the parish schools, and these were among the first of our students, but now we seldom have such a student at college.

10,832. Then the result of such a stringent examination as you suggest would be to exclude a great many students who now come to the college?—At first it might do so; but if a young man is determined to enter college, and if you give him encouragement to enter by awarding this B.A. degree without four years' attendance, he would probably study harder and to better purpose than he does at present.

10,833. What branches would you make compulsory for that degree?—Logic, moral philosophy, Latin, and mathematics.

10,834. And then you would have optional classes?—Yes, or alterna-

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tive classes. Instead of Greek, which must take a considerable portion of time to get up, I would give the student the option of taking German, or English language or literature, or natural philosophy, or chemistry, or political economy, or some branch of natural history.

10,835. You are pointing entirely at the degrees continuing to be degrees in Arts?—Yes.

10,836. You do not contemplate any degrees in Science?—I do not.

10,837. You think it is better to include in the Arts degree such portions of scientific study as the student chooses to take?—I think it would guarantee a man's mental culture to a certain extent. Passing successfully in those branches would indicate that a man had received the culture of a University, and then he might proceed to the B.Sc. or D.Sc., or any other degree which might be considered a special degree.

10,838. You do not think that the institution or revival of this degree of B.A. would have the effect of inducing students to be contented with it, and prevent their going on to the M.A.?—I do not think so; because at present most of our students continue their fourth year at college in order to entitle them to enter the Divinity Halls of the Established, Free, or United Presbyterian Churches. Those who take the four years, curriculum do so almost without exception with the view of entering one of the Divinity Halls.

10,839. Is that remark applicable specially to St. Andrews?—I speak only of St. Andrews.

10,840. Have you ever considered what effect the system of giving a B.A. degree, in respect of the attainments you mentioned, would have, as regards the estimation in which Scotch degrees would come to be held in England, where the B.A. indicates a much higher point of attainment?—I may be partial, but I believe that while the amount of attainment for the honours examination is greater in the English than in the Scotch Universities, our ordinary pass examinations for the M.A. degree are as difficult as those for the B.A. degree at Oxford. I have acted as classical examiner at St. Andrews, and I speak from a comparison of men who have passed with others who have taken the B.A. at Oxford.

10,841. But I am speaking of your proposed B.A. degree: I think the B.A. falls very little short of the M.A.?—It falls short only by one department—by natural philosophy, or some other department. I would have the amount of attainment in the subjects of examination as high as the amount of attainment for the M.A., and would merely have the M.A. implying something additional.

10,842. *Dr. Muir.*—Could you manage that in two years?—I think it might be managed if the student were obliged to undergo a satisfactory entrance examination qualifying him to enter at once upon the second year's classes.

10,843. *The Chairman.*—Would you make the holder of the B.A. degree a member of the General Council?—Individually, I should be inclined to do so; I do not know if the proposal would meet with general acceptance, though many, I think, are members with less claim. And indeed, unless we have some means of increasing the number of Arts graduates entitled to exercise the suffrage, we shall be outnumbered and outvoted by the medical graduates, who have no interest in St. Andrews at all, or no such interest at least as only the associations of residence and friendship can give.

10,844. But unless some change is made in the present system of medical graduation, the medical graduates will gradually diminish?—

Yes; but, so far as I can see, only ten or twelve per annum on an average have taken the degree of M.A.

10,845. And there are only ten of the medical graduates?—Yes. By and by, I have no doubt, we will be about equal.

10,846. But they will diminish in this respect that at present there are a large number who came in under the old system?—That is true. Besides, they take their degree when they are above forty years of age, and, unless their medical knowledge gives them an advantage, they are not likely to live so long as those who take their degree when they are about twenty. Another reason why I desire the revival of the B.A. degree is, that the future teachers of our primary and secondary schools may be induced, by the prospect of a University degree at the end of their course, to obtain the advantages of University influences and culture with less expenditure of time and money than is now possible to them. A considerable number of young men come up for one year merely for the purpose of having a 'brush up' at college, and with the view of entering upon the profession of teacher. Now these young men might be induced probably to continue for a second year at college if you held out to them the prospect of a B.A. degree at the end of their course. They would work better with such an object in view than without it, and you would induce them to continue for two years at the University. You would thus supply our primary schools with a higher class of teachers than at present fill them, because the great majority of our primary schoolmasters now do not pass through the University. Many of them do not even attend college for a single session, but are satisfied with the limited amount of instruction they receive at our normal schools.

10,847. But, in order to prevent them giving a preference to the normal schools, you would require some change by the department by which that matter is now arranged?—Yes, there would require to be a change. I do not object to the normal schools. If they were undenominational, the training they afford in teaching is of vast importance to the teacher; but I know that the amount of attainment required is very low—much lower than for some years after their institution.

10,848. You are aware that a certain degree of encouragement is given at present by the department to normal school pupils taking one or two years at the University?—Yes; but they are not obliged to do so, and you would encourage them still more by the restoration of the B.A. degree.

10,849. You do not think that the same object would be served by allowing them to obtain a certificate?—Not at all.

10,850. It is the glory of an academic title?—It may be so—a glory or distinction—but it is also a privilege or advantage.

10,851. *Mr. Campbell.*—Is B.A. the only title they would appreciate? It has been suggested that to avoid confusion the title of Licentiate of Arts would be better.—Any distinguishing title of that kind might do. But a new degree would want the prestige which attaches to that of B.A., and would not for some years at least be so popular or highly appreciated. Otherwise, I have no preference for the title of B.A.; what I desire is to have some title which would indicate a considerable amount of academic culture.

10,852. Do you think it would be a serious objection to this title that it did not carry academic privileges with it?—No, it would not be a serious objection, but the presence of these privileges would certainly be an inducement to many to take the degree, who otherwise would not care for it. We in St. Andrews would be the better of having a few more

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members of Council, with a living interest in our University and city, because, with the exception of the professors, the attendance of the members at our meetings is small.

10,853. *The Chairman*.—Can it be expected that they will come from a distance to attend?—No.

10,854. *Mr. Campbell*.—Do you think that young men after having spent three years at the University and taken the degree of B.A. or L.A. would be induced to attend another year in order to get the M.A.?—Some, no doubt, would; especially our aspiring students and those likely to distinguish themselves. Those who enter the Divinity Halls must attend a course qualifying them for the M.A. degree.

10,855. *The Chairman*.—And they constitute nearly your whole students?—Nearly the whole of those attending four years.

10,856. Have you any remarks to make upon the subject of degrees with honours?—I think our honours degrees should be made national instead of provincial. That is to say, the honour degrees for all Scotland ought to be conferred by representatives appointed by the four Universities. Each University should retain the power to confer the ordinary M.A. or B.A. degree, but in the case of honours a body of representatives from the different Universities should alone have the power of conferring degrees with honours.

10,857. What kind of representative body would you create in order to give that degree?—I am not prepared to submit a scheme for that purpose; but Professor Campbell of St. Andrews published a pamphlet a few years ago, in which he chalked out a scheme of which, in most particulars, I cordially approved. It would be of course a representative body changing slightly from year to year, introducing certain new members but retaining certain of the former members of the examining board, so as to have a majority of the members of the preceding year members for the following year.

10,858. Do you mean that it would be a board consisting of professors?—Professors and other examiners appointed either by Government or by the University Council.

10,859. Would you require a man to have taken his pass degree at his own University before he proceeded to take honours from this national body?—I think he ought to be obliged to take his pass degree at his own University.

10,860. Then it would be a second examination?—It would be a second examination so far.

10,861. Are not examinations quite numerous enough, if not too numerous, in this country already?—I do not know. And besides, the additional examination would be in one department only, except in the rare case of a student competing for honours in two or three departments. In St. Andrews, I suppose, the student takes his pass degree first, and then has to take his honours degree in addition to that. A student is notified in the Calendar as having passed all his examinations for the M.A. degree before going in for honours.

10,862. What advantage would you anticipate from making the honours degree, as you say, national instead of provincial?—It would raise generally the character of our Scotch degrees, which I know are looked upon with contempt by many Englishmen.

10,863. Is it not ignorance that breeds that contempt?—Yes; ignorance or something worse. Besides, I think it might even be a stimulant to professors, and would be an encouragement to students attending such a small University as that of St. Andrews to aim at higher attainments than they might otherwise do. They would be brought

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into contact with men who had studied at the larger Universities of Edinburgh and Glasgow, and it would be a matter of ambition to surpass those who had passed at those Universities. In that way you would encourage the smaller University. At present a degree with honours from Edinburgh or Glasgow is looked upon by a student as being a more honourable distinction than a similar degree at St. Andrews, in consequence of the number of students attending the former Universities being larger. But if you made this a national degree you might induce students to continue their studies at St. Andrews (which, I think, possesses some advantages which the larger Universities want), who now go to Edinburgh or Glasgow to get an honours degree. I know that many of our students do not care for an honours degree from St. Andrews. I have known students, upon whom I had urged the propriety of going in for honours, say: 'It is of no use; there is no distinction from St. Andrews;' and it is likely that those students would have been eager competitors had there been a national degree.

10,864. Do you think that the number of classes in honours should be increased?—In the case of all degrees—B.A., M.A., and honours degrees—I think the students should be arranged in order of merit, not in alphabetical order. I know that in St. Andrews the alphabetical arrangement has exercised a most injurious effect upon the students, by throwing the best into the same rank with the lowest, and I doubt not it is the same in the other Universities.

10,865. Would it be easy in the case of mere pass degrees to arrange them strictly in order of merit?—I think so—not strictly—but very nearly so. I did not find any difficulty in classics. In every case, I could arrange all the papers in order, and uniformly did so (without being required) for my own satisfaction. We have to classify and arrange them for honours; we must certify that the student has taken a certain percentage.

10,866. How many honours classes have you?—First and second-class honours.

10,867. Do you not think it would be desirable to have a third class, in order to increase the value of the second?—It might be. However, our second-class honours have been very low; they have ranged from fifty to sixty per cent. or even lower; and those who do not take above forty or forty-five per cent. are scarcely entitled to any distinction.

10,868. It has been represented to us by some witnesses that if you had a third class it might enhance the value of the second.—It might do that, but I think it would be of much more importance to have them arranged in order of merit, and to have the amount of average pass notified in each department. I think that is very important for the sake of the students. I think it would also be important (say) when a School Board is looking out for a teacher, and there are applications from two Masters of Arts who have taken their degree in the same year. There is, according to the present system, no distinction between them. How is the Board to discover which is the better man? If the average gained by each man were specified they would know at once which was the better scholar, and would know in what department he excelled, whether in classics, in mental philosophy, or in mathematics. At present they are thrown together. A student may be distinguished in mathematics and stand very low in classics. He is thrown into the same class with those distinguished in classics and low in mathematics, and they go before the public as on the same level in the same departments. Seeing that such situations as I have spoken of depend greatly upon the amount of culture the man has attained in a special department, I think it is of importance

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that the University should publish the rank he takes in each department.

10,869. In short, you should say that so-and-so has taken honours in mathematics, and so-and-so has taken honours in classics?—Not merely honours, but that such a man has taken eighty or ninety per cent. in classics, and another has taken fifty or sixty per cent., and so on, in the other departments.

10,870. *Mr. Campbell.*—That information is in the possession of the examining body?—In determining at present whether a student shall pass or not, we do not estimate the percentage.

10,871. But you think it could be easily done?—Easily, because we do so in the case of honours. It would give the examiners a little more trouble, but it would vastly benefit the students. At present it is a sort of trades-unionism in its most objectionable feature—you put all upon the same level, the comparatively ignorant and careless with the studious and intelligent—and you give all the same reward.

10,872. When you say that the students do not seem to appreciate honours at St. Andrews, you do not mean that they think the standard there is lower?—No, but being a small University they do not think it would be of advantage to them to take honours there.

10,873. But if there were three grades of honours, and it was known that the standard was the same as in the other Universities, would they not have the same inducement to aim at first-class honours as they have in the other Universities?—It would be difficult for any but a joint representative board to equalize the standard; I do not think the inducement would be so great in any of the Universities, and therefore not nearly so great in the smallest. I speak from knowledge of one or two of the most distinguished students at St. Andrews, who say they would go in willingly for a national degree, but do not care to go in for the degree from St. Andrews.

10,874. *The Chairman.*—You spoke of a certain elasticity being allowed in the subjects for the B.A. degree. Would you apply the same principle to the M.A. degree?—I should be inclined to allow fully as much elasticity in the higher as in the lower degree. But before passing to this, allow me to direct your attention to another point in connection with what I have been saying. At present the subjects of examination are divided into three departments—classical, philosophical, and mathematical. In order to take a degree the student must pass in each of these departments. Now I think you do great injustice to many students, and first-class students, by requiring them to pass in all these departments. You find, for instance, a most distinguished student in classics and philosophy plucked because he cannot pass in mathematics. He has not the mathematical faculty, or he has not come up properly drilled to the University, or his class is not well taught. Now I think that, instead of making them pass in each department, you should allow a certain proficiency in one department to compensate for deficiency in another.

10,875. But you would still have them examined in all?—Yes, and they should have a certain amount in every one of the departments; and if you were to fix (say) sixty per cent. as the aggregate of marks in each department, a student who took ninety per cent. in classics and ninety per cent. in philosophy should be allowed to take his degree, even though he took only a few marks, it might be five per cent., in mathematics.

10,876. Would you apply that to those who took only five per cent. in classics?—Yes, I would apply it in the same way.

10,877. *Dr. Muir.*—Why not exempt him altogether instead of taking

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such a small percentage?—Because he should avail himself of the instruction in all the departments, and specially in that in which he is most deficient. But my object is to show that very great proficiency in two departments ought to more than counterbalance any great deficiency in the third department. I lately examined the St. Andrews University Calendars for the last twelve years, and I found that of 160 students who have gone in for their degree examination during that period, 43 have failed to pass. One-fourth have been plucked for one department. They have generally passed in classics and philosophy and been plucked in mathematics.

10,878. *The Chairman.*—Mathematics is the department in which plucking generally takes place?—Yes, almost all of them passed in the two departments. Altogether, 153 went in for their degree, and of these 43 were plucked in mathematics. I think that is very hard upon those young men. They not only lose the fee and their degree, but they are disqualified for competing for higher prizes. A man who does not take his degree cannot compete for the Bruce or Ferguson scholarship, and he cannot compete even for the B.D. degree. Now some of our greatest divines have been men who could scarcely work a sum in proportion or solve a simple equation. It would have been in vain, for instance, to ask a late distinguished Professor of Biblical Criticism to demonstrate the simplest proposition in Euclid; and I know there are members of our Universities at present, of great distinction in literature, who would feel the same difficulty. You shut such men out from University distinction by compelling them to pass an examination in all the three departments, and you force some of our best students to migrate south.

10,879. You have told us what subjects you would make compulsory for the B.A. degree: would you make the same subjects, with the addition of natural philosophy and chemistry, compulsory for the M.A. degree?—I would leave the students a choice even for the M.A. degree. I would allow them to compete in some department of natural science or some higher department of philosophy, or history, or political economy.

10,880. Would you allow a man to take the M.A. degree who had not learned Greek?—I consider Greek a most important factor in both a literary and scientific education, but I see the tendency is very much to neglect it.

10,881. And you would so far encourage that tendency by allowing men to take the degree of M.A. who knew no Greek?—The current is so strong in that direction that it will be difficult to make head against it; but I should certainly like to see them obliged to take Greek for the M.A. degree, though I think the B.A. might be taken without it.

10,882. You say that most of those who go on for four years are aspirants to one or other of the Churches. The Churches would never recognise that degree as sufficient without Greek?—No.

10,883. Is that all you have to say with regard to the subject of graduation?—It has been proposed by some to have classes in Dundee in connection with the University. Such classes, I know, are called for by a great many young men in Dundee, and at the same time are likely to be supported by both the money and influence of the most influential citizens of Dundee. It is proposed by some that those classes should be taught in Dundee by sub-professors or lecturers in connection with the University of St. Andrews, to be appointed by the professors, with the sanction of the University Court, and to give instruction in various departments, not excluding any of the Arts classes, in the afternoon, from four or five till nine o'clock, so as to afford a University education to young men attending offices in Dundee during the day. Now it is

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thought by some—and I think it is a feasible thing—that those young men might be allowed to take the B.A. degree after having attended such classes in Dundee, and received certificates of proficiency in the various departments, on condition of their attending the University of St. Andrews for one session.

10,884. Provided they pass the examination?—Yes, only upon passing the examination. They would be allowed to go in for the B.A. degree after one year's attendance and examination, having previously attended classes in Dundee.

10,885. That would be to a certain extent the recognition of extra-mural teaching?—In one sense it would. It is proposed the teachers should be sub-professors.

10,886. Therefore, though locally extra-mural, it would academically be intra-mural teaching?—Under the direction of the professors in the various departments.

10,887. Has it not been suggested that some of the scientific departments should be taught at Dundee?—Yes, it has been proposed that the three professors in connection with the Medical Faculty should reside in Dundee and carry on their classes there, as there certainly is too little demand for them in St. Andrews.

10,888. Do you see anything inconsistent with University life in such a proposal as that?—Well, they have the advantages of contact with University life and with students at St. Andrews which they would not have at Dundee.

10,889. They would have University life, only it would be the life of a different branch of the University?—Yes, of University life in one phase of it; but I suppose it is the rubbing together of the students during the whole day and from week to week during the session that takes the angles off many of those who come up somewhat raw and underbred.

10,890. But if there were any considerable number in Dundee, they would have their angles rubbed off there?—They would want the almost continuous social and intellectual intercommunion easily accessible in a small University town. They would meet probably only for their classes, each attending his class and then going home.

10,891. At St. Andrews there may be a good deal of inter-academic life, but at Glasgow and Edinburgh, for example, is there much of it?—No; but you have a polished community here, which perhaps they have not to the same extent or within the same compass in Dundee, and the students come into contact not merely with each other, but with the citizens of Edinburgh, and with literary and scientific institutions, and in that way various external influences are brought into play.

10,892. But you are favourable to the general principle of the Dundee scheme?—Yes; I think that St. Andrews, to continue a University, to have a reason for its existence at all, must draw upon Dundee in some way or other for an additional supply of students, for our numbers are falling off every year.

10,893. When the Tay Bridge is finished and trains are established, it will be no great distance for Dundee students to go to St. Andrews?—No; but I question if they would attend during the day. Being almost wholly a manufacturing community, the great majority of the young men enter upon business at a comparatively early age; and yet there are many of them eager for knowledge and culture, who would gladly avail themselves of the higher teaching of our professors.

10,894. Are you sufficiently conversant with the people of Dundee to express an opinion that a considerable number would attend evening classes?—I think so. That is the opinion of many intelligent men there,

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and I may state by the way that I was lately appointed examiner for the Lowson Memorial, a bursary open to Dundee students, worth £60 a year, and of those who came forward as competitors for it a considerable number were young men employed in offices.

10,895. By Dundee students you mean young men who had received their education as they best could at Dundee?—Yes; young men who were not necessarily at college, but were anxious to get to college. Those young men would attend such classes as I have spoken of were they instituted.

10,896. *Dr. Muir.*—Do you suppose that a majority of the students who have hitherto attended the Dundee classes have belonged to the middle class or to the mechanical class?—Rather to the middle class, by which I mean clerks in merchants' offices, warehouses, and so on. It is that class of young men who have attended, and not mechanics.

10,897. Because from the class of mechanics one could expect but few to come forward and take the degree of B.A.?—There might be a few from the class, but only a few.

10,898. *The Chairman.*—But you would not allow the Dundee students to take the degree of B.A. without having attended one session in the University itself?—I think not.

10,899. I think you have some observations to make with respect to the library?—I think it is of great importance that the library catalogue should be finished as soon as possible.

10,900. Is it in course of preparation?—It is in course of being written up. They have been several years at it. There are two or three employed upon it, but there seems to be little hope of its being completed for some years to come.

10,901. It is a very expensive process making a catalogue of a library, especially if it has to be printed?—I suppose so; but at present the library is of little use to many of us. I do not know whether a book is or is not in the library without going through some half-a-dozen volumes, and even after that the book may be in the library and I may not find it.

10,902. I suppose the staff of the library is not sufficient to save you the trouble of turning over?—No. There are a librarian and a sub-librarian; but we do not know what books are in the library.

10,903. Would there be a demand for it, supposing the catalogue to be finished and printed?—I think there might be. I should not say there would be many copies sold, but there might be a demand to the extent of from fifty or sixty to one hundred copies.

10,904. I am afraid that any sale there would be would go but a short way in paying the expense?—Yes. I presume Government cannot be looked to for the money, and that this University has no funds available for the purpose; but if the library were content to forego £100 a year or so, Government might advance the money for the purpose of finishing the catalogue, and keep it out of the compensation money.

10,905. *Mr. Campbell.*—Do you think a printed catalogue is necessary?—I think it is.

10,906. There is no such thing in Glasgow?—If the catalogue were finished it would be easy to add to it from year to year by interleaving it at the proper pages.

10,907. *The Chairman.*—But in the meantime it is not finished even in MS.?—No.

10,908. And could not be finished without a considerably larger staff than you have?—No. I suppose a staff of half-a-dozen would be required to complete it in two or three years.

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10,909. You have something to say, I think, as to the privilege of using the library?—I think, with most others I have spoken to, that members of Council of one University should have the privilege of reading in the library of any other University if they are residing in its neighbourhood.

10,910. Do you think that would be a popular measure with the members of the University of Edinburgh?—It might be an encroachment on their privileges, but it would be popular with the St. Andrews graduates who reside in Edinburgh and they would be glad to reciprocate.

10,911. Would you give that privilege without payment?—Certainly not. I think they ought to contribute to the library in which they read, not the library with which as students they are connected.

10,912. You think that the contribution they make at present, which is 10s. a year, would be sufficient to meet the great additional expense that would be involved?—It is as much as I should like to give; whether it is sufficient or not I do not know. I am not qualified to enter upon the financial view of the question. I do not know whether it is for this Commission to determine in regard to a matter that concerns us in St. Andrews, viz. the privilege of having access to the periodicals at an earlier period than we have at present. Members of Council residing in St. Andrews must either purchase those periodicals, as we have not a reading club, or wait till fifteen months are past before we get one, by which time it is antiquated.

10,913. Why must you wait?—Because we are not allowed to have any review till it is bound, and that, in the case of some of them, is not for fourteen months after publication.

10,914. Is it the professors who monopolize them?—They have the best right to them, but they have probably finished them in a week or a fortnight.

10,915. That is a special regulation made by the managers of the library; it is not founded on any Ordinance?—Perhaps so.

10,916. Probably a rule made in the ordinary administration of the library by the librarian?—I see, according to the last report, books are not allowed to be given out which are unbound.

10,917. That is a rule made by the University itself?—Probably.

10,918. Would there not be some little danger to books if they are allowed to travel unbound over the country?—I would not have them travel over the country. What I propose is, that members residing in St. Andrews and the neighbourhood should have them under such regulations as may prevent abuse, and may admit of speedy transfer. I think the General Council might have the power of appointing a member of the library committee.

10,919. Do you think the present constitution of the University Court satisfactory?—I think it should consist of a larger number of members than at present.

10,920. How many?—Nine, I think. The present number is six.

10,921. Where would you get the additional three?—I think the junior Principal ought to be *ex officio* a member of the Court.

10,922. Suppose the day should come when there was but one Principal?—Then the University Council, or perhaps the Government, should have the privilege of appointment.

10,923. Besides the junior Principal, what others would you add to the Court?—I think the University Council should have the privilege of appointing two or three assessors, instead of one as at present. The students have virtually two—the Rector and his assessor. Now the General Council probably represents a higher amount of intelligence than

do the students attending the University, though it cannot be denied that the students have exercised their right with great wisdom.

10,924. How many does the Senatus return?—One.

10,925. Do you think the representation of the Senatus should be increased?—It is a small body, and it may be presumptuous to doubt if the collective wisdom of the Senatus is to be compared with that of the Council.

10,926. There would be other advantages in having the numbers of the Court increased?—Yes. I am satisfied with the way in which the patronage of the chairs has hitherto been exercised by the Court; still, from its present constitution, the patronage may be virtually in the hands of one individual. There is no doubt the Principal, who is the only permanent member of the Court, has almost all the power at present in appointing to chairs.

10,927. But that must be through the influence he exercises?—His being a permanent member gives him a vastly greater influence than those have who are members for only three or four years; and, being resident in the place, he is continually able to be present at meetings. At present our Rector is in London. His assessor, the Earl of Elgin, may be anywhere. The meetings of the Court consist of only three or four members, and those members are virtually guided by one or two—the Principal and the representative from the Senatus. Such at least is the general belief.

10,928. Are you aware whether in the elections to chairs the absent members vote by proxy?—I know nothing of the internal working of the Court, but I have been told that the absent members have not always exercised that privilege. I think also that in delicate matters, the Court, if enlarged, would be able to act with more energy and less regard perhaps to feeling than the small number at present constituting the Court can act.

10,929. And it would be more easy to get a quorum?—Yes. For twenty years or more there was a professor in the University drawing his salary from year to year, and teaching no class whatever, chiefly, as some thought, from inability to teach, and yet the University Court could do nothing to that man.

10,930. Why could they do nothing?—Because it would have been a painful thing to deal harshly with a man of genial temperament with whom the leading members of the Court were coming constantly in contact.

10,931. You mean that they would not do it?—They would not do it, though probably with a larger Court they would have been able to subject personal feeling to a regard for public interest.

10,932. Was any complaint made?—There was a motion to be brought forward by a member of the General Council for the purpose of memorializing the Court on the matter; but on the day on which the motion was to be submitted there was so full a muster of personal friends, that the member saw it would be useless to press his motion, and withdrew it. Now, had the University Court been larger, the members representing the Council would have acted without that regard to personal partiality or feeling which was likely to influence members of the Court residing in St. Andrews, and personally acquainted with the professor to whom I allude—nay, I believe that one or two of the members of the Court would not have waited for a memorial from the Council, but would have initiated action had the Court been larger. Such cases may arise frequently. For instance, suppose you have a professor of high culture and amiable character who does not discharge his duties efficiently,—who discharges them in such a way that the students rather leave the

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class, or, while they are there, conduct themselves so noisily that no one can attend to the instruction given,—should there not be some means of pensioning off such a professor?

10,933. There are means, are there not?—There are not, or, at all events, the University Court show a disinclination to put those means into effect.

10,934. Will it not generally be the case that, if you are to have an efficient Court, it must consist of men chiefly resident in St. Andrews?—Yes, to have a quorum. There are no means at present of getting rid of a professor who is inefficient.

10,935. There are the means. The University Court, you say, do not do it, but they have the power?—I know instances of students who do not attend a University class, but go to extra-mural teachers for the purpose of getting that instruction for which there is a class specially intended in the University.

10,936. *Dr. Muir*.—Even now?—Even now. I think that this session there are ten or twelve who, in the regular course, should attend a class in the University, but who cannot get the requisite instruction because the class is in a state of disorganization, and who have to go elsewhere.

10,937. Do you think that the facilities for getting rid of an inefficient professor would be increased if the retiring allowances were larger?—I think they would.

10,938. Would you approve of what has been suggested by some witnesses, that after a certain age, or a certain number of years' tenure of office combined perhaps with age, a professor should be entitled to retire without proving inability?—Certainly. I think that might render his retirement easier than if you were to give the University Court or any other body the power to cashier him, and yet some men will cling to office (even when every one thinks they must themselves be aware of their incompetency) so tenaciously, that money even will not induce them to relax their hold.

10,939. Some witnesses go the length of saying that a man should be compelled to retire after a certain number of years' tenure of office?—I am not of that opinion, because you frequently find men who have passed the ordinary period of active life more efficient teachers than those who are younger men. I think a man may teach at the age of seventy fully as vigorously as at the age of thirty, and perhaps more discreetly and judiciously.

10,940. I presume you disapprove of the possession of the patronage of University chairs by private individuals?—I do. I am of opinion that the patronage should be vested either in the Government or in a larger body than a single patron. We have three chairs in St. Andrews, the patronage of which is vested in private individuals.

10,941. Is there anything else you have to say?—Nothing.

Adjourned.

FRIDAY, 23d February 1877—(*Sixtieth Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

Professor GAIRDNER, examined.

10,942. *The Chairman*.—You desire, I understand, to make some addition to the evidence you previously gave?—Yes, on the subject of clinical teaching.

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10,943. We shall be glad to hear your views about that.—I wish to take up a suggestion that I put into my former evidence, but did not develope, viz. that I have all along considered that the power and the right to teach clinically was a most important part of the function of the Professor of Practice of Medicine. The whole methods of instruction have been changing so much within the last fifty years from the dogmatic method to the practical method, that I believe it is now quite impossible for the teacher of a systematic branch to maintain his position with the students, or to have the efficiency that is requisite, unless he has a practical branch attached to it; and the evidence that I formerly gave tended to this, that every teacher of a systematic branch ought to have something in the shape of a practical branch allied to it,—a laboratory, for instance, in the case of chemistry, a dissecting-room in the case of anatomy, an experimental room in the case of physiology,—and that the practical department, corresponding to the Practice of Medicine, is the hospital and clinical teaching. This is quite sufficient to show the position I held in speaking to you before, but it has occurred to me since that it might be necessary to develope it a little more before the Commissioners, inasmuch as the constitution of the new chairs of Clinical Medicine and Clinical Surgery in Glasgow appeared to raise points that were rather troublesome, and had been found in practice rather difficult to adjust as between the provinces of the two. If the Commissioners will allow me, I think I can put my own views, in the first instance, into a very compendious shape, by quoting from evidence I gave in 1869, before these troublesome questions had been raised in our University at all, and before there had been any talk of Clinical chairs. This was in answer to a request from the General Medical Council to state my views (amongst other teachers) on the subject of the branch that I had to do with, and the branch assigned to me was medicine and clinical medicine. I said—‘I have a strong opinion, founded on experience, that no systematic teacher can long maintain his efficiency at the highest point without being also a clinical teacher. It is not a necessary corollary from this that systematic teachers *only* ought to be clinical teachers; on the contrary, at the seat of a large school, I hold that all hospital physicians and surgeons ought as far as possible to be clinical teachers, and, what is more, I feel certain that there is plenty of work for them all to do. The great difficulty in the clinical teaching of medicine is to instruct large numbers without sacrificing something of what may be called the true clinical method; that is, the directness of the instruction as performed at the bed-side. The clinical lecture is, strictly speaking, only a subordinate part of true clinical instruction; but at present the clinical lecture is the

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only part of it which commands the attendance of the greater proportion of the students, and, therefore, the only point at which tests of attendance are applied by the regulations.' I may mention that since we got into the Western Infirmary, where we have all things now (as it were) to our hand, we have done a great deal to remedy that. We have insisted far more on the regular attendance of the students not only on the lectures but in the wards, and we do procure a far larger amount of practical clinical study. 'In the case of surgery a good deal of truly clinical instruction can be given in the lecture-room. But in medicine nearly the whole field of internal disease, and especially all that concerns râles, cardiac bruits, pulses, temperatures, and, generally, all the phenomena of acute diseases, can only be taught directly at the bed-side: and, therefore, it is very questionable whether the present arrangements are really efficient.' That referred to the arrangements in 1869. 'Having regard to present arrangements, however, I always endeavour to make the lectures called clinical as direct and practical as possible. But, after all, the clinical instruction in medicine of a large school is a very difficult duty and a very heavy responsibility. I do not believe that any one method or any one teacher can do all that is required; and on this ground I should be favourable within reasonable limits to a multiplication of teachers.' The object I have in reading that is to show that in 1869 the view I took was that, in the first place, clinical instruction is an inevitable and a necessary part of the duty of my own chair; but, in the second place, that instead of desiring to monopolize it, I desired as far as possible to share it with all the other physicians of the hospital who could do it. And that is the view I still maintain. I think it is very important that the Commissioners should understand the grounds on which I take the view, that it is absolutely necessary that the teacher of Practice of Medicine should appear in the hospital and be a clinical teacher as well. It is not only that he obtains the materials for illustrating individual lectures and individual points,—although that is the case,—but it is to a far greater extent this: the fact that the students are personally conscious of him as an influence in connection with the actual personal study of disease, that they know and see he is working in the direction in which he speaks, that his actions correspond with his maxims. It is that which gives life to his lectures, and unless that is secured,—that sort of personal impression on the part of the students,—his systematic teaching will be sure to fall off in interest. That is the main point I wished to bring before the Commissioners as regards my own views in the matter.

10,944. Has the Professor of Practice of Medicine hitherto in Glasgow been a clinical lecturer,—I mean yourself and your predecessors?—I have been so, not only in Glasgow, but ever since I lectured on Practice of Medicine in Edinburgh. My immediate predecessor in Glasgow was not, but the one before him was; and before that again there was none of it. I ascribe in great part the comparative backwardness of the Glasgow school to the want of that.

10,945. *Mr. Campbell Swinton.*—Were there no materials for it at the time when you say it did not exist at all?—There were plenty of materials, but there was a want of any kind of connection between the hospital and the University. The University had no claim on the managers of the Infirmary except a moral claim, and the Infirmary did not acknowledge any direct connection with the University. In the case of the Western Infirmary, we have got it in the charter of the institution that the Infirmary is to give the means of clinical teaching to the University.

10,946. *The Chairman.*—I see that in the medical curriculum in

Glasgow one of the requisites is a course of six months of clinical medicine, or two courses of three months each, the lectures being given at least twice a week?—Yes.

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10,947. Now, do the lectures which you give supply that qualification?—Certainly; and not only the lectures which I give, but the lectures which every physician and surgeon in the Western Infirmary and in the Royal Infirmary give.

10,948. *Mr. Campbell Swinton*.—If the courses given by those teachers in the Infirmarys qualify for a degree, they must be recognised by the University Court?—They are.

10,949. I mean, their lectures must come within the limited number of courses that are recognised by the University Court?—Yes, but the University Court has taken the view in Glasgow, in consequence of the precedents established by the old relations with the Infirmary, that they will make no distinction among clinical lecturers, but will recognise all the physicians and all the surgeons of both the Royal and Western Infirmarys, so that the present state of matters is that any physician or surgeon in those institutions has the power of giving qualifying clinical courses.

10,950. *The Chairman*.—And you do not object to that?—Not at all.

10,951. Before those clinical chairs were established, what was the arrangement in the University of Glasgow for giving lectures in clinical medicine and clinical surgery?—The arrangement, as I said, was unsatisfactory, inasmuch as the University had no claim upon the Royal Infirmary.

10,952. I understand that; but, as matter of fact, what was the arrangement made within the University for giving clinical lectures?—The arrangement adopted was simply this, that the University accepted the actual clinical teaching given in the Royal Infirmary.

10,953. And that was given by whom?—By the physicians and surgeons of the Royal Infirmary.

10,954. Who were not professors?—Who were not necessarily professors.

10,955. But who might be?—Yes; and when I went to Glasgow,—and Professor Lister, who held the Surgical chair, was exactly in the same position,—I made it one of my objects to get into the Infirmary as a physician. The managers of the day acknowledged the claim I had as Professor of Medicine, and put me at a very early period into the first vacancy, but that might not have happened.

10,956. Do I understand you to say that Professor Lister, while in Glasgow, gave clinical lectures in the Infirmary?—Yes.

10,957. At the same time that you did?—At the same time that I did, and before I was there.

10,958. Is there anything more upon the subject that you wish to say?—I should wish to lay before the Commissioners my sense of what was the object of the University in founding the Clinical chairs. And here I think I can do it best perhaps by quoting a few sentences from a document which has been under the eye of my colleagues, and, therefore, is not likely to be erroneous in point of fact. I may mention that the Clinical chairs were instituted at the time it was proposed to move from the Royal Infirmary to the Western Infirmary. Dr. Macleod and myself were quite willing to teach clinically, but it was thought in the University, and we concurred in the view, that the University would be stronger if it had other well-known clinical teachers attached to the institution. At the same time, there were two gentlemen in the Royal Infirmary, who are now our colleagues, who had a very natural desire and ambition to

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be attached to the University, and in this way it came about that those chairs were proposed to the University, and were brought under the notice of the Senate, and sent by them for the opinion of the Medical Faculty. The opinion of the Medical Faculty was given to the Senate in a minute of April 7, 1874, signed by Dr. Allen Thomson as convener, to this effect:—‘That, upon a consideration of the whole matter, they,’—that is, the Medical Faculty,—‘are of opinion that the establishment in the University of special Professors of Clinical Surgery and Clinical Medicine would be for the benefit of the medical school, but that those objects, and the method of giving effect to them, should be carefully considered as regards the details, so as to give security that such new chairs shall in no respect interfere with the claims of the Professors of Surgery and of Medicine, or of any other professor to whom the duty may be delegated, to take part in the clinical instruction given in the Western Infirmary or elsewhere on behalf of the University.’ This produced further negotiations and minutes of 16th April and 1st and 19th May, the Principal being added to the members of the Medical Faculty as a committee; and in the end the thing was found to be so complicated that, upon the personal appeal of the Principal, Dr. Macleod and I, who were willing, if our own interests in regard to clinical teaching were protected, to see the Clinical chairs established, agreed to postpone the consideration of the details on the understanding, as given by the Principal to us, that the interests of our chairs in connection with clinical teaching were sufficiently protected, and that the Court and Senate, having, by the minute of 19th May, formally assumed the right and duty of settling all such details, would be sure to do so with due regard to our claims, reserving also the possible future interests of other professors. On this we considered that the thing was in a satisfactory position, and we assented to the institution of the new chairs, but with this clause introduced into the deed of foundation of the two Clinical chairs,—that the professors were to teach ‘by lectures and other instruction, without prejudice to the claims of any of the other Professors in the Faculty of Medicine to similar teaching.’ We, therefore, regard the question as now in this position, that while the Clinical Professors are there to aid in the clinical teaching, to do as much as they can in the interest of the University, we are to be maintained in the position that we have always occupied in the Royal Infirmary as clinical teachers, and to teach also in the interests of the University to the best of our ability; and if the Commissioners have followed what I said in 1869, they will see that is exactly in accordance with the views I held then, that the clinical teaching, to be effective, must be distributed amongst a number and not confined to one teacher.

10,959. *Dr. Muir*.—Do the newly-elected professors object to your view as now stated to us?—That I am not able exactly to say. They have on various occasions indicated differences from our view, but whether or not they would object entirely to what I am saying I do not know.

10,960. *The Chairman*.—There is no existing grievance?—Not as things stand at present, provided they are allowed to remain so; but I wish frankly to state that we have been conscious of attempts to supplant us.

10,961. You apprehend that attempts may be made to limit your clinical teaching?—It is a little more than that. We were placed so as to have to resist such attempts; but if things remain as at present we have nothing to complain of.

10,962. *Dr. Muir*.—Upon whom is attendance required on the part

of the students to entitle them to be considered as having gone through a regular course?—On any of us; the students can take their choice.

10,962*. *Mr. Campbell Swinton.*—And the Clinical Professors teach only in the Infirmary, not in the University buildings?—Only in the Western Infirmary. If the present position is maintained, or if it is left to the University Court and the Senate, I am quite satisfied; but I wished the Commissioners to be aware of the grounds on which I maintain my own right to clinical teaching.

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Glasgow.

Adjourned.

SATURDAY, 24th February 1877—(Sixty-First Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*
THE DUKE OF BUCCLEUCH.
THE RIGHT HON. LYON PLAYFAIR, C.B.
DR. JOHN MUIR.
JAMES ANTHONY FROUDE, Esq.
ARCHIBALD CAMPBELL SWINTON, Esq.
PROFESSOR HUXLEY.

Professor JEBB, examined.

10,963. *The Chairman.*—You are Professor of Greek in the University of Glasgow?—I am.

10,964. When were you appointed?—In July 1875.

10,965. You were educated at Cambridge?—I was.

10,966. And were senior classic of your year?—I was.

10,967. You were also a Fellow of Trinity College?—I was.

10,968. And at one time Public Orator of the University?—Yes.

10,969. You have not had very long experience of the system of classical teaching in a Scotch University?—This is only my second session.

10,970. We should like to have your opinion as to the existing course of study and regulations for graduation in the Faculty of Arts,—either in connection with your own chair, or generally, as you may think fit?—With your permission, I should prefer to take first the question regarding the present attainments of our students in Greek when they come to us, because I think the few remarks I have to offer will be more intelligible when I have stated how much Greek they know generally when they come to us.

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10,971. Will you proceed in what you think the best order?—Last session, 1875–76, was my first session. I entered on my duties in the beginning of November 1875. I found the existing practice was that the junior class should be taken altogether by the assistant, but as I was anxious to ascertain how much the junior class knew, I began to take it twice a week myself, and in February 1876, after the work of the session had lasted three months, I set an examination paper on Greek grammar to the class. At the head of the paper the candidate was requested to state his age, and to answer the following query:—‘State whether you had studied Greek before 1st November 1875, and if so, for how long, and where.’ I beg to hand in copies of the paper, so that the members of the Commission may judge for themselves as to its character. The examination was simply in the work actually done in the University class-room during those three months, and the questions are founded on the grammar that has actually been in use. The results are given in a table which I have drawn up, and which I now beg to submit. The total number in the Junior Greek class on 5th February 1876 was 152, and the number who attended this examination was 149. The following are the results:—

	1st Class, obtaining 193 marks or upwards out of a possible 312.	2d Class, 103 or upwards.	3d Class, 55 or upwards.	4th Class, less than 55 marks.	Total
Number of students who had never studied Greek before 1st November, 1875	2	13	18	9	42
Number of students who had studied Greek for not more than three months before 1st November, 1875	8	15	8	3	34
Do., for not more than six months .	6	13	8	6	33
Do., for not more than one year . .	4	10	3	3	20
Do., for more than one year . . .	9	7	3	1	20
	29	58	40	22	149

This year I set a similar paper, of which I have copies here. In my classification of the statistics I introduced a slight improvement by separating those who had studied Greek for a little less than one month from those who had studied it somewhat more, but still less than three months. There were several who had just begun Greek before they came, who practically knew nothing but the alphabet, and whose work had been practically *nil*. The total number in the junior Greek class on 10th February 1877 was 154, of whom 152 attended the examination. The following are the results:—

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	1st Class, 200 marks or more out of a possible 300.	2d Class, 100 marks or more.	3d Class, 45 or more.	4th Class, less than 45.	Total.
No Greek before 1st November, 1876	3	12	15	10	40.
Less than one month of Greek, or if more, yet practically nil	3	17	6	2	28
Not more than three months	4	14	9	2	29
Not more than six months	8	14	5	1	28
Not more than one year	9	9	2	2	22
More than one year	2	3	...	...	5
	29	69	37	17	152

I have drawn up a list of the answers given by 28 of the students who were placed in the first class this year, in their own words, because it will tell more clearly than anything else could the state of affairs as regards the study of Greek amongst the students who come to me at present.

	Number of marks out of possible 300.	Age.	Previous Study of Greek.
Student No. 1	270	22	'One quarter of evening class in Anderson's University.'
" No. 2	264	26	'For about six months in 1868, at Fleet-side Boys' School, Gateside, Kirkcudbrightshire.'
" No. 3	257.	18	'Never studied Greek before I came to this class.'
" No. 4	251	16	'Studied Greek for one year and a half in the Lochmaben Public School.'
" No. 5	249	16	'Studied Greek for one session at Glasgow Academy.'
" Nos. 6 and 7 equal }	243	{ 16 20	'Never studied Greek before 1st November 1876.'
" No. 8	242	17	'Studied Greek for about nine months.'
			'Studied Greek for one year at Glasgow High School.'

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	Number of marks out of possible 300.	Age.	Previous Study of Greek.
Student No. 9	240	...	'Studied Greek for about one year in Kil-marnock Academy.'
„ No. 10	237	19	'For about one year at Ardrossan Parochial School.'
„ Nos. 11 and 12 equal	236	18	'One year and a half at Glasgow High School.'
		22	'I have been only as far as the beginning of the 3d declension under the tuition of a minister,' naming the place.
„ No. 13	234	17	'For one year at Glasgow Academy.'
„ Nos. 14 and 15 equal	230	25	'Two quarters at a night school, twice a week.'
		19	'Learned principally by myself for about two months before November.'
„ No. 16	228	20	'Five months, U.P. Church Tutorial Class.'
„ No. 17	226	19	'For a few months four years ago in Smith's School, Uddingston.'
„ No. 18	225	19	'With a private teacher since February 1876.'
„ No. 19	224	27	'No Greek before 1st November 1876.'
„ No. 20	220	20	'Six months at Free Church College.'
„ No. 21	217	20	'For about one year at U.P. Church Tutorial Class.'
„ No. 22	216	16	'Two months at Mechanics' Institution, Glasgow.'
„ No. 23	210	22	'One year at Montrose Academy.'
„ No. 24	206	18	'As pupil-teacher six months at Oaklands Public School,—only elementary grammar, not translation.'
„ No. 25	205	19	'About nine months, three hours a week.'
„ No. 26	202	22	'Seven months with a private teacher.'
„ No. 27	201	16	'One year at Glasgow Academy.'
„ No. 28	200	16	'One month under a tutor at home.'

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The general results of the two years are these (they have been practically the same in both years), that, out of about 150, the proportion who had studied Greek, either at a secondary or primary school, or in a class of some kind, has been about 50 in each year; those who had studied under private tuition, about 25; and those who had studied by themselves, without any aid at all, about 25; the remaining one-third having had absolutely no Greek at all before they came to the University. I ought to mention that, in a great many instances, qualifying remarks were added by the candidates, after saying that they had studied under private tuition for so many months,—‘very irregularly,’ ‘very little,’ ‘two nights a week,’ ‘two hours a week,’ ‘one and a half hours a week.’ In several cases it appeared that the student had read a little Greek two or more years ago, and was now resuming it. In one case I had this answer from a student aged twenty-three,—‘A month or two seven years ago,’—and I have already given an instance in which the student said that his last study of Greek was in 1868. My impression, therefore, is that the students who enter the junior Greek class at Glasgow at present come very imperfectly prepared, except in the few cases where they have been at good secondary schools, and that, working as hard as most of them generally do, they can acquire a sound knowledge of the rudiments of Greek in the course of one session. The examination papers which have been set last year and this year, though of a very simple character, are, so far as they go, calculated to ascertain whether a student does really know the rudiments or not, and, so far as they go, I think that they may be taken as proving, in cases where they are well done, that the student has mastered the elements of the language. With regard to an entrance examination in Greek, my own impression, founded upon those results, is, that it is at present wholly impracticable, because, if it were to be made a reality, it must necessarily exclude the great majority of the students. On the other hand, if the standard were placed so low as to be attainable by any considerable proportion of those who are entering the Greek class for the first time, it would be for all practical purposes worthless; it would mean nothing, and could easily be prepared for by a fortnight’s or three weeks’ work before the session began. The examinations which I have held in the past two years have enabled me to classify the students roughly and to deal with the different groups according to their different requirements. In theory, for my own part, I see no objection to a student, situated as are the majority of Scotch students, beginning Greek at the University. Hebrew, Arabic, Syriac, are usually begun at the University by the students who study them, and it seems to me to be much better that a student should be trained thoroughly in grammar from the beginning than that he should not be allowed to come up at all unless he has had a certain amount of teaching beforehand, which in very many cases will unavoidably be of an inferior character, and in some cases will have to be undone before the teacher at the University can venture to proceed. My own experience when I came to Glasgow was that there were some students in the middle Greek class who ought to have been in the junior, and some in the senior who ought to have been in the middle, if not lower. It was this that determined me to take the junior class partly myself, and secure, so far as possible, that the foundation on which this future work was to be built should be firm. I found that this was not at all unnecessary, for, even with such pains and time as one could bestow, it was difficult enough to secure such a foundation. I propose now to take the question as to the course of study and regulations for graduation in the Faculty of Arts, in connection with

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this question of Greek, and only in so far as it is immediately connected with it. I must first mention what the pass standard is. In April last year, for the pass M.A., the Greek subjects were the Hecuba of Euripides, from which twenty-two lines were set for translation, and a book of Herodotus, from which two chapters were set; there was no composition, but some easy questions in parsing. Now, if we compare this standard with that (for example) of a roughly analogous examination at Cambridge,—the general examination which is passed by all students, not candidates for honours, who are in their fifth term at least,—it is manifest that the standard in the University of Glasgow for the pass in Greek is lower. The requirements for the general examination last year were,—the Acts of the Apostles in Greek, and the Seventh Book of Thucydides. The standard required in the general examination is, I should say, higher; certainly, the work to be done for it must be pronounced harder.

10,972. *Mr. Playfair*.—Which is harder?—The general examination at Cambridge: that is my impression. As regards the University of London, the standard, I think, is higher still.

10,978. *Professor Huxley*.—The standard for what?—For the B.A. pass,—both the first and second pass; but I wish to speak of that when I come to the question of new degrees. With regard to the honours standard in Arts at Glasgow last April, the subjects were,—four passages for translation from certain poetical books prescribed, the same number from certain prose books prescribed, a passage of English to be translated into Greek prose, and the general paper, including both Latin and Greek, with some more or less simple questions in Greek grammar, antiquities, and the like. My own impression is, that a higher standard for the pass examination at Glasgow is impracticable at present so far as Greek is concerned, and that it will remain impracticable until a marked change takes place in the general teaching of Greek throughout the schools of Scotland. The standard for honours in Greek, in my opinion, is not so high as it ought to be, and I think that it rests to a certain extent with the working of the Greek class in the University to raise that standard. It depends a good deal on how far the hands of the Professor of Greek are set free to do his best with the higher part of his class, whether that standard can be raised or not. The pass standard I do not think can be raised at present, though it is not, in my opinion, any more satisfactory than is the honours standard. In reference to the question of the institution of new degrees, I propose to touch that at only one point, viz. in regard to the place which classics ought to hold in the ordinary B.A. degree, if such a degree should be instituted. Now here, it appears to me, the University of London furnishes some very valuable analogies. I was examiner in classics in the University of London for three years, from 1872 to 1875, when I resigned the appointment on being elected to the Greek chair at Glasgow. In the matriculation examination at London University, Latin is required, but Greek is alternative with German. The candidate is required to take up two of the following languages—Greek, French, and German,—of which French must be one. But for the first and second B.A. pass examinations, both of which the student has to pass before he can obtain the ordinary B.A. degree, Greek is required. Any student who has passed the matriculation examination, can go in for the first B.A. pass one academical year afterwards; but if he has passed with honours in the matriculation, he can go in half a year afterwards,—e.g., if he has obtained honours in the matriculation in January, he can go in for the B.A. pass in June. The requirements in Latin for the first B.A. pass are the following:—Two Latin subjects, one in prose, the other in verse, to be

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selected two years previously by the Senate, from the works of certain authors which are mentioned; questions in Roman history; and some simple passages for translation into Latin. In Greek the requirements are,—One book of either Homer or Xenophon, to be selected two years previously by the Senate, together with easy questions in grammar. The Greek subject in 1875 was Homer's *Iliad*, book x., and in 1876, Homer's *Iliad*, book vi. The second B.A. pass is taken a year after the first B.A. pass, unless the student has become a B.Sc., in which case he can pass sooner. The requirements for the second B.A. pass are these: In Latin, one Latin prose subject, to be selected two years previously from the works of certain authors who are named, as, for instance, one of the *Orations* of Cicero, one book of Livy, one book of Tacitus, either of the *Annals* or of the *Histories*. In Greek the requirements are,—One Greek subject selected from certain authors who are named, as, for instance, Homer, six books; *Æschylus*, one play; *Sophocles*, one play; and so on in similar proportions. The classical subjects for the second B.A. pass in 1875 were,—*Demosthenes*, speech against *Meidias*; Livy, book ix.; the *Bacchanals* of *Euripides*; the *Annals* of Tacitus, book xiii. The London University B.A. degree is a thoroughly satisfactory one, so far as I can judge in my own department. I think that is due in great measure to the care with which the standard has been kept steady. And, in reference to the proposed ordinary B.A. degree at Glasgow, it appears to me that the general line taken at the University of London is one worthy of consideration. They do not require Greek for matriculation, German being admissible as an alternative, but they do require a modicum of Greek for both the first and second B.A. pass, taking care, however, not to overweight the candidate at either examination. In the event of such a degree being instituted, it would be desirable to guard against the danger of making it, when attained, practically worthless for the class of men who are supposed to require it, and who, I think, to a great extent do require it. I mean, that if it became generally understood that the degree did not represent nearly so much as the ordinary B.A. of the London University, it would be to all intents and purposes worthless. There are two classes of men who come to the University of Glasgow,—the men who want to get the M.A. degree, and the men who want to get culture. Now if the new B.A. degree was so constituted that, *qua* degree, it would be practically worthless, while at the same time the interests of culture were sacrificed, I cannot but think that it would fall between two stools,—that it would not be sought by those who desire a degree, while it would fail as a means of giving them liberal culture. It is on that ground, supported by the analogy of the London University, that I should be sorry (without, I hope, undue partiality for my own subject) to see Greek omitted from the course for the proposed B.A. degree, if it should be revived, or to see the University of Glasgow be put at a marked disadvantage as compared with the London University, where, I think, the happy mean has been very fairly attained with respect to that examination. While I was an examiner at the London University, I never heard of teachers or candidates complaining that they had too much Greek, and certainly the general result appeared very satisfactory.

10,974. *The Chairman*.—There is a degree of M.A. in the London University?—Yes.

10,975. What additional attainments are required for that?—They are rather considerable. The examination for the degree of M.A. takes place once in each year, on the first Monday in June. The candidates are examined in one or more of the following branches—Classics, mathe-

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metics, natural philosophy, logic and moral philosophy, political philosophy, history of philosophy, political economy. The examination in classics includes the following subjects:—The Greek and Latin classic authors,—the candidate being liable to be examined in any author who is understood to be classical, in either Greek or Latin,—and prose composition in Greek, Latin, and English, ancient history, and the history of Europe to the end of the eighteenth century. During the three years that I was examiner, the number of candidates for the M.A. degree was usually very small, varying from about twelve to about twenty; but I am bound to say that the work appeared to me to be exceedingly well done, and the M.A., as distinct from the B.A., was emphatically a reality.

10,976. *Dr. Muir*.—For the B.A., did the student know beforehand upon what play, or what book of Tacitus or Livy, he was to be examined?—He did. The subjects were selected two years previously by the Senate.

10,977. But not so for the M.A.?—No; the whole classical range of the two literatures is included.

10,978. *Professor Huxley*.—There are few examinations more severe, than that for the M.A. in the University of London?—It is very severe, and the consequence is that but a small number present themselves.

10,979. *Mr. Froude*.—Would you say it was equivalent to the Cambridge examination?—That is rather a difficult question; for it does not correspond exactly to anything we have. A first-class in its classical department is perhaps equivalent, on an average, to a high or middle place in the second-class of the classical tripos. I think that would represent it fairly,—that is to say, there is a great deal of work done for it, a great deal of sound literary knowledge acquired, but it is only now and then that a student presents himself (in my experience) with those accomplishments in classical composition, in 'pure' scholarship, and in style, which are usually requisite to the attainment of a first-class in the classical tripos. But such comparisons are necessarily vague.

10,980. *The Chairman*.—Can you state the average number of candidates for the B.A. degree in the University of London?—For the B.A. pass it is very large. I have known it considerably over 200. It varies a good deal, but I think about 150 may be taken as the average.

10,981. Does the candidate for the M.A. degree require to have taken the B.A. previously?—Yes; the regulation in that respect is,—No candidate shall be admitted to the examination for the M.A. until the expiration of one academical year from the time he has obtained the B.A. degree in the University.

10,982. *Mr. Campbell Swinton*.—What do you mean by the first B.A. and the second B.A.?—The first B.A. roughly corresponds to the previous examination at Cambridge; it is the first public examination after admission to the University.

10,983. *The Chairman*.—In short, there are two successive examinations?—Yes.

10,984. *Mr. Campbell Swinton*.—With an interval?—With an interval of a year; but the first may follow the matriculation examination at an interval of six months, provided the candidate has obtained honours in the matriculation.

10,985. *The Chairman*.—Now perhaps you would proceed with the remainder of your suggestions, in your own order?—The next point I propose to take up is the assistance required in the department of Greek. The arrangements of the Greek class at present are as follows:—There are twenty hours of class-work in each week. The Greek class has four

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hours a day, on every day except Saturday. The senior class meets at eight o'clock, the middle at ten, the junior at twelve, the senior and private class at two. At eight o'clock we read Homer, Herodotus, Thucydides, or such other author as the professor appoints; at ten o'clock, an easier author, such as Xenophon, and afterwards Herodotus and Homer; the junior class, at twelve, is occupied at first with the Greek grammar, and then proceeds to read easy Greek; and at two the professor lectures on more difficult authors, such as the dramatists or the philosophers. It is still the practice that the professor should take fourteen of the twenty hours a week, his assistant taking six hours. That was the custom which I found in existence when I came, and which I have continued. My assistant takes two hours on Monday, and one hour on each of the other days; I take two hours on Monday, and three on each of the other days. When I entered on my duties, I found it had not been the custom to have a written examination in any class, except the private class,—the class which meets at two, and in which the most advanced work is done. It seemed to me very important and very necessary to test exactly the progress of all the classes—senior, middle, and junior, as well as private—from time to time by written examinations; and when this session ends I shall have held, I hope, six such examinations,—that is to say, two in the junior class, two in the middle class, one, which will consist of three papers, in the senior class, and one in the private class.

10,986. Have you only one assistant?—Yes.

10,987. What is the allowance you have for your assistant?—£100.

As regards the length of the session, which is the next point I propose to take up, I have nothing to say, except that I should like to offer a few remarks upon the relative merits of the English and Scottish divisions of the academical year. I had thirteen years' experience of college work at Cambridge, and so I have something to go upon in comparing them. The advantage of the English division of the academical year into three terms is, in my opinion, the refreshment that it permits to the hard-working man. Take the case of a Cambridge undergraduate reading for the mathematical tripos. He is probably reading with some distinguished private tutor who works him as hard as he can work, and is attending college lectures besides. Few persons who have not seen how such men work can have any idea of the strain they put upon themselves for weeks and months together, very often when they are far from physically strong. For such men the break of five weeks at Christmas and a fortnight or more at Easter is most valuable. Their academical year being divided into three portions, usually of not more than eight weeks each, is for them a most excellent refreshment; but it is only for them that this is altogether a good thing. There is often a certain disadvantage in the partial unsettlement of the men who are not working hard; and, of course, another obvious result is to increase the expense for all. The degree to which the average undergraduate is unsettled by the 'going down' and 'coming up' at the vacations would be differently estimated by different judges. Many, no doubt, will deny that there was any appreciable unsettlement. As a past college tutor, I should say that there was a good deal of it in the case of men who have no serious interest in study; and I should therefore claim unalloyed merit for the English system only in the case of the earnestly studious men. There is one important and necessary class of men for whom it is perhaps best of all, viz. the hard-working college lecturers and tutors, to whom it is absolutely essential to keep up with the best work that is being done in their subject, and who really have not time to do it during term.

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As regards the system which at present exists in the Scottish Universities,—a session of six months followed by a vacation of six months,—I think the advantages and disadvantages are analogous to those of the English system,—that is to say, the disadvantage is the strain put upon the hard-working men, and the advantage is the opportunity afforded of getting at least one long spell of regular work out of every man, and this appears to me to be no contemptible advantage. To a few men, no doubt, the prolonged strain is very trying; but the case appears to be somewhat different from that of the English Universities. In the Scottish Universities there are probably few ordeals which evoke quite such intense intellectual effort as the final examinations for honours at Oxford and Cambridge. Scottish students work very hard. The difficulty sometimes is to keep them from working too hard. Towards the end of the session the men are perceptibly fagged; but I do not think that, except in perhaps a few cases, the strain is at all likely to be dangerous. Then, the advantage of ensuring a long spell of work from every student is no doubt a very great one. And, lastly, there is, of course, a very important question as to the expense. On that question my experience does not justify me in offering any opinion, but my impression certainly would be that a system which involved a student going away twice or thrice and coming back again would make the Scottish Universities impossible for a great number of men who at present come to them. Many of the students, besides, have summer occupations which would be interrupted; in fact, the great majority of them find it convenient to concentrate their study into six months, and have the other six months clear.

In regard to extra-mural teaching, one important point to be considered is, I think, as to how it would probably affect intra-mural teaching. One distinctive advantage which the Scottish Universities have at present is, that examination is subordinate to teaching, instead of teaching being regulated, and consequently to a great extent cramped, by examination. I believe the great preponderance of witnesses would agree on this,—that at present it is no small advantage that the tyranny of examination does not dominate the teaching. Extra-mural teaching, would, in my opinion, tend to reverse this condition of things; for, in the first place, the immediate object of the extra-mural teacher would be to get his men through the examination; what passed within the walls of the University otherwise would be nothing to him. He would look at the examination papers of previous years, analyze them, and gradually develop a complete mechanism of cram. I remember once seeing an advertisement of a cram-book—‘Greek history in half an hour.’ All those expedients would gradually come into play. Now, if the standard of examination happened to be raised somewhat abruptly, because meanwhile the teachers within the University had succeeded in raising the standard of work in their respective classes, there would be an outcry from the extra-mural teachers. If, on the other hand, the extra-mural teachers, whose object was the examination, were victorious, the intra-mural teachers would be under a temptation to turn crammers too, in order to prevent their class-rooms from being emptied. The result could not be otherwise, even at the best, than gradually to shackle the University teaching,—such at least is my opinion. More probably it would be worse still. It would lower the prestige of University teaching, and would tend to make the University be looked upon not as a teaching body, but primarily as an examining machine. I speak under correction, but I am not aware there is an example of a University combining the characters of teacher and examiner. The University of

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London has been eminently successful as an examining body. Other Universities are recognised as successful teaching bodies, capable also of examining those whom they have taught. But I do not know that there is any example of the same University being at once an examining machine for persons who choose to come to it from without and a satisfactory teacher of its own students with a view to their being examined within its walls. I believe it was the rule in the University of Dublin to let undergraduates count at least some terms without residence, on condition of passing the examinations, and it may be so still; but I imagine that this case does not furnish any true analogy for extra-mural teaching in Scotland.

10,988. *Mr. Playfair*.—It is so still?—I do not know what the exact practice or the experience of Dublin has been; but my impression is, that the recognition of extra-mural teaching, unless guarded in some way, would tend to subordinate the teaching to the examinations, and so to cramp the intra-mural teaching in a way that might prove undesirable. On all other grounds I should be in favour of recognising extra-mural teaching.

10,989. *The Chairman*.—Have you considered the present curriculum for the degree of M.A. with a view to consider whether any change ought to be introduced in any department?—I have not seen my way to suggest any change in it. I think that the space in the curriculum allotted to the different departments is, so far as I can judge, fairly apportioned. As I have mentioned, I am dissatisfied with the standard both of the pass degree and of the honours degree in respect of Greek, but I cannot suggest any way of improving it at present. I do not think that we should ask more than there is a fair chance of the men doing, and they come to us very badly taught in most cases.

10,990. *Dr Muir*.—Would not an examination at the end of the first year's course conduce to an elevation of the standard?—It might have that effect; but I think that there would be a danger of its eliciting a spasmodic effort from the students which would be unfavourable to their steady and sound progress. Scottish students, so far as I have seen, have an almost morbid dread of a written examination, and I think the result would probably be to put them into a fever, and to lead to an unsatisfactory kind of work.

10,991. It might be better, perhaps, to have it at the beginning of the second session, so as to allow them time for preparation during the summer?—I think that would be preferable.

10,992. *The Chairman*.—It has been suggested that there ought to be optional courses of study for the degree of M.A. Have you considered that subject at all?—I see no objection to an option. I think such a scheme might be devised, but I am not prepared to offer any specific suggestions.

10,993. If there were optional courses adopted, would you be disposed to make any particular subjects indispensable in either alternative?—My general view on that subject is what I have ventured to state in reference to the institution of new degrees,—that the Universities of Scotland ought to take care that their degrees carry a recognised public value as certificates of a liberal education,—that, therefore, if they entered into competition with younger institutions, by diminishing the weight given to what are called the older studies, they would be in great danger of failing to obtain public recognition and public esteem for their degrees. The University of London, in its ordinary B.A. degree, appears to me to have very judiciously retained classics, for example, as one, though not an unduly preponderating condition of the

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degree, and I would certainly be disposed to follow that example in the event of the adoption of optional courses.

10,994. You would not be disposed to allow any man to take a degree in Arts who had not attainments in classical scholarship such as are required at present?—That would be my view.

10,995. Both in Latin and Greek?—I think so. The standard is at present certainly not too high, and anything less than that would be undesirable.

10,996. *Dr. Muir.*—And you see no mode of elevating the standard of instruction in the classical department, except by the improvement of the secondary schools of the country?—I think that at present a great deal depends on the University teachers themselves. A great deal may be done by energetic work in the several classes; but, beyond that, I see no hope but in the creation of secondary schools.

10,997. Do you think that if the standard of requirements for the M.A. degree were raised, men would not come up to it if they saw the necessity for doing so?—Considering the state of preparation in which they come at present, as regards classics, I think it would be hardly possible for them in the time to satisfy a much higher standard without sacrificing other studies to classics in a way which I think altogether unreasonable.

10,998. Have those who now go up for the degree of M.A. taken three years in Greek?—They have not necessarily attended for more than two sessions. At the beginning of each session an examination is held for admission to the senior Greek class. A student who passes that is admitted to it at once, and gets his degree with one year of Greek. If he cannot do so he has to enter a lower class, and is obliged to take a second session of Greek.

10,999. But with regard to those who have studied in your highest class, and attended your private class into the bargain, would they not be able to pass an examination of a much higher standard than the present?—It is indeed my hope that hereafter they will be able to do so; but, taking the average preparation of the students as I have found it, I should hesitate to say that it was generally possible at present.

11,000. Even for third-year students?—Yes.

11,001. *Mr. Froude.*—What do you think would be the effect on the study of Greek in Scotland of the abolition of Greek as a compulsory part of the curriculum?—I think that the effect would be to extinguish the study of Greek.

11,002. Do you think there is no one in Scotland who values classical scholarship for its own sake? Would no student come to the University for the sake of culture?—I fear that those who value Greek for its own sake are not very numerous. There are a few; but the general disposition of the student who comes to the University is intensely practical. He asks, 'How is this going to serve me in life?'

11,003. Of course you would get a higher standard immediately if the study of Greek were limited to those who really wished to acquire an accurate knowledge of it?—Unquestionably; but I think the number of persons who would study it without any view to a University examination or degree would probably be very small.

11,004. When you prescribe twenty-two lines of Euripides, they would have to know the whole play?—Yes.

11,005. And two chapters of Herodotus would imply that they would have to know the whole?—The whole of the Book from which these were taken.

11,006. Do you think that the amount of knowledge of the language

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which is implied in so low a standard as that is really of very much intellectual value to a man?—In my opinion it *may* be so. I think that if the rudiments of the language and the easier literature are taught in a proper way, they may form a mental possession of considerable value. I believe that, in a far larger number of cases than is popularly supposed, a comparatively small knowledge of Greek is followed up in after life; and the key which it gives to a great literature is in itself, I think, a valuable possession.

11,007. Do you think that ten per cent. of the students ten years afterwards ever look into a Greek book?—I should think so, but I can hardly judge of that.

11,008. You spoke of the extra-mural system. Do you look on the private tutor system at Cambridge as at all analogous to what extra-mural teaching would be in Scotland if it were adopted?—There is this important difference, that the private tutors at Cambridge are men in close sympathy with the University teaching. In very many cases they are at the same time college lecturers. The most distinguished private tutor in mathematics, who has had the most of the highest wranglers for many years back, is also a lecturer in a college. The next most distinguished is also lecturer in a college. Another of the foremost private tutors was for many years a lecturer in a college, and has only recently ceased to be so. They are all men who have passed through the college system and the University examinations. They have an intimate sympathy with the traditions and modes of University teaching, and therefore may be trusted to teach in a sound and high way, as a rule.

11,009. And do you not suppose that the most valuable part of the teaching the men get at the English Universities is from the private tutors?—There is a very marked distinction to be drawn, so far as Cambridge is concerned, between two of the principal branches of study, the mathematical and the classical. The higher teaching of candidates for mathematical honours is now to a large extent in the hands of private tutors, and it is so partly owing to the recent changes in the mathematical tripos, which have made the range of subjects included so large that it is absolutely indispensable even for the best-prepared student to have a great deal of constant assistance in order that he may get through them in time. But in classics it is otherwise. When I went up to Cambridge in 1858, the highest classical teaching was to a very great extent in the hands of private tutors. There were two or three celebrated private tutors, and one in particular of very great reputation. But several years ago several of the colleges combined for the purpose of lectures in classics. The system became known as that of inter-collegiate lectures. There are now two groups of colleges at Cambridge which combine for classical lectures,—that is to say, an undergraduate at any one of those colleges can go to the classical lectures at any of the others,—and the highest classical teaching of the University is done now altogether by college lectures,—so much so, that there is not at this moment in Cambridge, so far as I know, a single private tutor for classical honours who has any large number of pupils.

11,010. The system appears inapplicable to the Universities here?—Yes.

11,011. *Mr. Playfair*.—I think you said we ought to aim at reaching the standard of the degrees in the University of London?—I think it would be very desirable, especially in regard to the B.A. pass degree.

11,012. You are aware that the University of London covers a very large area,—the whole of the United Kingdom and the Colonies,—and

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that it is only able to pass not more than forty B.A.'s in the whole year? Yes.

11,013. Does that not indicate that it is a sort of fancy and honour degree as compared with the requirements of the population,—that the whole of the United Kingdom and its Colonies cannot provide more than forty B.A.'s in a single year?—I should require to be better acquainted than I am with the field from which the candidates are drawn before I could answer that question adequately; but it appears to me, to take it from another point of view, that the standard for the B.A. pass degree in the London University is not higher than the standard should be for any degree worthy of the name. I should fear that if the standard were lowered the result would inevitably be to diminish the value of the degree in popular estimation, so that the London B.A. would come to be thought less of.

11,014. You are aware that the matriculations in London are largely increasing, but that the degrees in Arts are not increasing?—Yes.

11,015. Does that not practically show that, though the University of London may afford to have a fancy degree or high honour degree, it is a degree above the heads of the students who matriculate even in the University of London, because, when you find the candidates who come up increasing and the number who take degrees not increasing, there is something not compatible with the people who desire it?—I should still reply that I hardly see how a B.A. degree, if it is to have any value, could be lower. It is to be regretted, I think, that a greater number of persons do not take it, but I do not see how any good would be gained by lowering the standard to meet their requirements. Supposing it was made so easy that, instead of forty candidates one hundred passed every year, the facility with which they attained their degree would soon become a matter of notoriety, and there would be a corresponding fall in the estimation attached to it.

11,016. That would probably be the case; but is it not the case that it is of far greater importance to induce a large number of persons in any University or institution to pass a moderate degree, in order to promote study, than to have an honour degree which very few can pass, and for which, therefore, fewer are stimulated to study?—That appears to me to be a relative question. It would be possible to lower the standard so much that the object desired would not be attained,—I mean, the standard for the degree might be pitched so low that study would not be encouraged.

11,017. You have about 1100 Arts students in Glasgow?—Yes.

11,018. And of those only about forty take the degree of M.A. in each year?—Yes.

11,019. *The Chairman.*—But the 1100 include all the students of the different years?—Yes.

11,020. So that the proportion taking the degree will be 160 out of 1100?—Yes.

11,021. *Mr. Playfair.*—What becomes of the 940 who take no degree at all?—I am afraid that is a question I cannot answer; my experience has been too short. I imagine that a great number of them are prevented from proceeding to the degree by personal reasons, possibly by the necessity of taking up some occupation at once, by want of leisure or want of means.

11,022. Do you not think that a large number of them go into professions and industries without taking a degree at all, but come to you just to get a certain amount of general culture?—Unquestionably a great number do, I should think.

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11,023. Now I think you said that in your class you got twenty-nine who passed first-class in your examination this year?—Yes.

11,024. And if the table you handed in to us represented the attainments of those men, that is considerably lower than the entrance examination for the three years' curriculum, in Edinburgh for instance?—I am not acquainted with that examination.

11,025. For instance, a passage of Xenophon into English, and a few easy sentences from English into Greek?—Yes, it is very much less; my examination was, as I have explained, simply an examination in the rudiments of Greek grammar.

11,026. Suppose it were made the rule that no person should go up for a degree in your Greek class, or even go forward for a degree in Medicine or a degree in Science, unless he passed an examination equal to that which I have mentioned to you, would not the practical result be that a large proportion of your 940 could not go on for degrees in Medicine or Science at all, and might be forced out of your University and go to medical schools at other places to study, if such an examination were made imperative before they went up for degrees?—I should think so.

11,027. That is your experience?—My present experience is founded only on one session and part of another; but that is certainly my impression. You mean, as I understand, if the examination were put at the beginning as a matriculation examination?

11,028. No, at the end say of the first year.—I should give a different answer as to that. I think that any student who had attended the Greek class in any one of its divisions for one year could pass with the greatest ease such an examination as you describe. The paper in my examination was done by students who had been in the Greek class for only three months, and some of those who did best did not know the Greek alphabet when they came.

11,029. But how many, do you think, at the end of the first year, would pass an examination equal to that which I have referred to at Edinburgh?—I think that nearly the whole of my present class could pass such an examination at the beginning of next November.

11,030. It would be no harm, then, so far as regards the men who went up for Arts degrees, that they should be subjected to such an examination?—I think not.

11,031. And you think, with regard to the 940 men who do not take degrees that it would not stop them?—That I can hardly judge of so well. I must limit my reply to saying that in my opinion a student who had had one session of the Greek class would be able to do such a paper as you have referred to at the beginning of the second session; and I may point out that at the end of my paper there is just such an exercise in translation. But I think that, at present, it would be absolutely impracticable to have such an examination as that at the beginning of the first session.

11,032. But would you be quite satisfied that it would not shut out many from going into the second class if you made that a condition before they entered the second class?—I think not. May I add a remark to the answer I made in reference to the paper for the three years' curriculum. I understand that the passage from Xenophon may be taken from any part of Xenophon. Considering the present state of the study of Greek in Scotland, it would be very much better, in the event of such a test being required, to prescribe, say, two books of Xenophon, or all events, a definite portion, from which the passage was to be selected, because I think the students who come up with a little knowledge of grammar at the beginning of their first session are often in

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the position of one of those candidates who stated that he had learned Greek for six months as a pupil teacher, but 'only elementary grammar, not translation.' Many of those who have learned the rudiments of grammar have had no exercise in translation from Greek into English, and their grammatical knowledge is in advance of their constructive power.

11,033. Do you find that the students who come to you are tolerably well up in English composition, and that they spell properly?—There are many exceptions.

11,034. Do you not think it might be advantageous that in the Arts Faculty you should have the same conditions which you have in the other faculties, that the students should be examined in English, arithmetic, and elementary mechanics?—I think it is most desirable.

11,035. Because at present the examination is confined to three subjects—Latin, Greek, and mathematics?—Yes. It has been suggested that we should have a matriculation examination, which should test their knowledge of English and arithmetic, and I think something of that kind would be very useful. In my own department, I try to practise them in English composition by occasionally setting essays on subjects connected with Greek history or literature, and these they do very fairly.

11,036. Suppose you found at the end of the first session that you could get nearly all your students to pass an examination of the kind which has been referred to, do you not think, as there are a large number who never go up for a degree, it might be well, after they have passed such an examination, to let them select particular subjects for which they are more particularly adapted, such as philosophical, mathematical, or scientific schools, and not force them to go into higher Greek if it was not their peculiar affection to do so?—My own impression is, that on our system two sessions represent the minimum, the shortest space of time in which a student can get any knowledge of Greek worthy to count in his culture. I do not think that, after one session of the junior Greek class, and passing such an examination as that, the student could be said to possess any knowledge of Greek which could be taken account of in his culture.

11,037. But suppose he showed a knowledge, not of Greek, but of other branches of philology, and a desire to cultivate modern languages, would not that give him culture also?—Unquestionably; but it is my view, I confess, that the Universities ought to take care of the higher liberal culture. If the humanities are not studied at the University, they certainly will not be studied elsewhere; and the statistics which I have produced to-day appear to me to suggest, so far as they go, that the study of Greek, for example, is very likely to be altogether extinguished in Scotland unless adequate care is taken of it by the Universities.

11,038. If you allowed men to take such schools as I have mentioned, would that not have the effect of inducing a number of those who now pass through without taking any degree of liberal culture at all to stay some time in the Arts Faculty in order to get liberal culture before they began their professional studies?—With reference, or not with reference, to a degree?

11,039. With a view to their future career. For instance, if a man diverged, and, after passing such an examination, took a scientific branch, he would save a year in his medical curriculum if he took it in your Arts Faculty.—With a view to a degree in medicine?

11,040. Yes.—Well, for my own part, I confess I do not think that, as a University, we should be justified in permitting any of our graduates to be virtually ignorant of Greek.

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11,041. Of the twenty-eight men who passed highest in your three months' examination, showing a fair knowledge of grammar, the average age is very nearly twenty?—Yes.

11,042. Now, that representing only the junior year, can you suppose that a large number of those men who average twenty will go on for three years longer before they begin their professional studies, and that they will be induced to take the Arts degree as a preliminary culture before beginning their professional studies?—I believe that as the University system of Scotland is at present arranged many of them will do so, because the six months' session leaves the other half of the year clear. A large number of such men of twenty and upwards are engaged in business pursuits of one kind or another in Glasgow and the neighbourhood, which they combine with their University attendance.

11,043. That refers to those who go up for the Arts degree; but those who go on for a medical degree must go on the same winter?—My opinion on that matter is of little worth, for it is a question of statistics which I do not possess; but as regards the other I should think a considerable number would.

11,044. *Professor Huxley*.—I understand you are absolutely opposed to an entrance examination in the present circumstances of the University?—It is my opinion that, as regards Greek, it is wholly impracticable at present.

11,045. That, in fact, any real examination which might be instituted now, would cut off more than 50 per cent. of your students at once?—I think so.

11,046. And that, at present, would simply be to deny them the opportunity of obtaining any higher culture at all?—Yes.

11,047. Because there are at present no sufficient number of secondary schools in which, what they now get at the University could be obtained?—Yes.

11,048. I further understood you to say that, as a professor desiring to teach thoroughly, you see no objection in itself to your personally superintending the instruction in the rudiments of the Greek language?—I do not.

11,049. And, upon the whole, I gather that you would rather have a boy who knew nothing, than one with what he might get at a good many places of instruction?—Yes.

11,050. So, I imagine, you would prefer as a student in your class, a boy who had really had something like a sound elementary education in an elementary school, rather than one who had passed through half of the places which are called secondary schools?—Decidedly.

11,051. In fact, in such an elementary school he might have been taught his arithmetic soundly, and might, if properly taught, have obtained rudiments of culture in English literature, which would be a great help to his study of Greek literature?—Yes.

11,052. In the circumstances of the population of Scotland, it surely is very desirable that there should be no kind of obstacle placed in the way of persons coming to the University?—Yes; the national character of the University is a great matter.

11,053. The Universities in fact, have been one great means by which men of ability have been sifted out from all classes of the population, and enabled to take their proper places?—Yes.

11,054. And probably in that sense, they have played a part which the English Universities have not played for the last two centuries?—Yes.

11,055. In view of raising the standard of teaching in the Universities, which, I presume, you imagine a desirable thing, if it does not sacrifice

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the more important objects of the University,—[*The witness*—Yes.]—might it not be well to adopt an examination somewhat corresponding to Moderations at Oxford, either at the end of the first session or at the beginning of the second?—I think it would be very desirable if it were practicable. My impression is that time is wanted, in my own department.

11,056. And the advantage of that examination would be this, that it would enable a man who had come up without the opportunity of preparation to avail himself of the superior instruction given by the professors, and in all probability to pass the examination?—Yes.

11,057. And at the same time, the period which he had spent at the University would count as part of his time there?—Yes.

11,058. And if he failed, it would be quite possible, I suppose, to have a second examination at the beginning of the next term?—That would be essential.

11,059. To give him six months for preparation?—Yes.

11,060. That would have the great advantage of not excluding anybody, and at the same time not cutting off any man who was really disposed to work and to use the advantage of the University, which is the training of the University, and who showed himself able to take his place amongst the students at any given time afterwards?—Yes.

11,061. And I understand from you, that that would commend itself to you much more than any preliminary or entrance examination?—I should like an entrance examination at the beginning of the first session if I thought it practicable, but it seems to me to be impracticable.

11,062. My questions, of course, were entirely upon that supposition?—Yes.

11,063. It may be that in your experience as an examiner at the University of London, you had to do with the matriculation examination?—Yes.

11,064. That experience may possibly lead you to be able to reply to an inquiry I am about to make. Is it not very much the case that the matriculation examination at the University of London has become practically an *abiturienten-examen* for the London schools?—So I am informed.

11,065. That is to say, the London schoolmasters take advantage of the matriculation, which is a very good examination indeed, to test their best scholars?—I think that is the case.

11,066. But a great many of those scholars go into business and into all sorts of occupations, and never think of pursuing a University career, and a comparatively small proportion go on to the B.A. degree?—Yes.

11,067. So that the actual quality of the B.A. examination has really very little to do with the matter?—I should think so.

11,068. You are aware that under the present regulations the University of London gives an alternative in respect of Greek in the matriculation examination?—Yes.

11,069. That of course has no effect upon the Arts degrees?—No.

11,070. And, I presume, from what you said just now, you would think it very undesirable that Greek should be omitted as part of the proper Arts course?—I think so.

11,071. On that point I do not differ from you. I should be glad to have your opinion as to the effect of the omission of Greek upon the further course of the graduates of the University of London who branch off into science or into medicine. So far as my recollection serves me, a person who has matriculated in the University of London may afterwards graduate in medicine or in science without any further classical examination?—Yes.

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11,072. Would you be good enough to say whether you think that a wise regulation, or the reverse? I do not mean to say in view of what might be obtained if time were unlimited and opportunities otherwise than they are, but considering what the modern professions now are and what physical science now is?—My answer would be to this effect: I think that for the London University it is an excellent arrangement. I have always understood that the University of London has enjoyed a special prestige for its medical degrees.

11,073. That is so.—And also for its encouragement of scientific study. It appears to me that such institutions as the Universities of Scotland are in a somewhat different position. They are, for this country, the representatives not merely of medical science, but of all that Oxford and Cambridge represent for England.

11,074. Pray let me say that I am not for a moment suggesting the omission of the classics in the Arts degree. My question is entirely directed to what I may almost call the professional degrees,—degrees in medicine and science,—and, whatever be the case in Glasgow, Edinburgh has been for generations distinguished pre-eminently as a medical school, and I believe the same thing may be said of Glasgow, though perhaps not to the same extent. So, without in the slightest degree referring to the possibility or feasibility or advisability of taking a degree in Arts without classics, I am asking your opinion about the propriety of giving degrees in pure science and in medicine without those subjects?—My opinion—though I fear it is worth very little on the point—would be this, that, in such Universities as are the Universities of Scotland, a degree in medicine ought never to be dissociated wholly from that general training in the humanities which it is part of such Universities as those of Oxford and Cambridge to give; and then it becomes a question of how much. Latin is of course allowed to be indispensable. In my opinion, a knowledge of Latin without some knowledge of Greek is of decidedly less value than it would otherwise be, and no person can be said to possess culture in the humanities who has not some knowledge of Greek as well as of Latin. If I thought it were possible to gain such a knowledge of Greek as would be of any value in one session, I should say, let one session suffice; but I do not think one session is enough for that purpose. I think that two sessions are required; but I speak with deference towards those who understand the requirements of candidates for the medical degrees better than I do. It is my own feeling, however, that Universities in the position of Oxford and Cambridge in England, and of the Scottish Universities, ought to aim at their medical graduates possessing, besides their professional knowledge, the elements of the higher liberal culture. In so far as that element is represented by classics,—that is to say, by a certain amount of the two languages,—I think it ought to be required of all candidates for medical degrees.

11,075. Without suggesting a doubt for a moment that it is most desirable that professional men should possess a large and liberal culture,—and I go in for that as heartily as you do,—there come in the requirements of human life. As matters of fact, a young man now is expected to begin his medical studies not later than eighteen or nineteen, and he must take four years,—with the enormously increasing mass of medical study, it is far better that he should take five years if possible. Well, what he has to learn is a great variety of difficult sciences, an enormous mass of details, requiring an immense amount of practical study in the laboratory and the anatomical room; and the question comes to be whether he shall satisfy that which shall make him the man the public take him to be, or this higher culture?—That seems to me to be a professional question.

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11,076. But, under the circumstances, which do you say?—If the two things are incompatible, the first business of a physician is to be a physician. The only question is how far they are incompatible, and that is a question on which I cannot speak without knowing more than I do about the requirements of the physician.

11,077. You are aware probably of the requirements which now obtain as to the preliminary examinations for medicine at Edinburgh,—in classics, for example. At present the regulations for graduation in medicine at Edinburgh require for the degree of M.B. the eighth book of Livy, and no Greek at all. If a man goes on to the Doctorate, he has there no Latin, but he has one book of Xenophon. Does that strike you as a regulation which is likely to secure the object, and the very valuable object, you have in view in requiring liberal culture?—It occurs to me that that question depends somewhat on this further question, how far it is necessary for the man to understand (*e.g.*) Hippocrates and Galen. The power of mastering such writers would certainly not be acquired by reading one book of Xenophon; but perhaps these authorities are obsolete.

11,078. I think one may venture to say that at the present day, except for historical purposes, they are not consulted. I cannot but express my own concurrence in the desire you have for culture; but with that purpose in view is it worth while to interrupt a man's professional studies?—It is not, most certainly, if it does interrupt them. It is simply a question whether the two things can be combined or not. In my view it is desirable to combine them, if possible, but how far it is possible is another matter.

11,079. *Mr Campbell Swinton.*—I do not think you gave us your own opinion as to whether the B.A. degree ought to be revived in the Scotch Universities. You are aware it did exist formerly?—Yes. I purposely abstained from expressing any opinion on that subject, because, as I understand, the proposal to revive it was mainly in favour of what are sometimes called the minor professions. I think that phrase has been used in connection with the proposal to revive the degree, meaning especially (as I understand) civil engineers and schoolmasters. Now, I am not sufficiently acquainted with the extent to which such a degree is desired by members of those professions in this country to be able to judge. My general view would be that, if they do desire a University degree, then it is desirable to have one for them; but for their protection, as well as for the protection of the Universities, we have to consider whether the degree, revived in a particular way, is likely to be of any value to them. It is possible to institute a B.A. pass degree to which the world in general would attach comparatively little value, and perhaps the men who bestowed two or three years in attaining it would find they had got an article which was hardly worth getting. If a desire is generally felt for it, it would be, in my opinion, desirable to institute it; but, in instituting it, care should be taken that it is such a degree as will be of real value in the world to those who seek it.

11,080. But you have not considered the subject so as to give us any opinion of your own as to what curriculum or what amount of attainment should be required for such a degree?—Yes, I concur in the whole with the plan which has been suggested, to the effect that in the first year you should have necessarily Latin, Greek, and mathematics; and that in the second year you should have at least one classical class and such other classes as remain to be taken by the student,—any five of the eight classes still necessary. But I must say that I should greatly prefer requiring two years of Greek as well as two years of Latin for that

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degree, following the precedent of the University of London. That is my own view. One year of Latin and Greek, followed by one year of either, at option, would practically mean two years of Latin and one year of Greek, and I think it would be very much more desirable to have two years of Greek as well as of Latin, because, though a student may make fair progress in the rudiments, I do not think that in one session he can attain a knowledge that is of much practical value; with that exception, I should assent to the scheme.

11,081. Have you considered what effect the revival of this degree would have in inducing men to go on to take the M.A. degree, or the reverse?—I have no hesitation in saying that I think it would unquestionably deter them from taking the higher degree. I think a very large majority would be content with the B.A. In fact, the supposed circumstances of the persons who, as I understand, are contemplated, would in most cases make it nearly certain that they would rest content with the B.A. Time is presumed to be an object with them, and other considerations as well.

11,082. Is there not some apprehension also that even those who at present take the M.A. would be satisfied if they got a University recognition in the shape of the B.A., and would proceed no further?—That is my opinion.

11,083. *Mr. Playfair*.—Can you tell us whether there is any strength of feeling in Oxford or Cambridge in favour of making the M.A. a higher degree by examination?—A very distinguished writer on University reform—the Rector of Lincoln—has, if I mistake not, more than once called attention to that point. But at Cambridge, so far as I know, no movement has been made, and I do not think there is any considerable body of opinion in favour of it,—at least there was not while I was at Cambridge.

11,084. If Oxford and Cambridge follow the practice at the London University and make their M.A. much higher by examination, will it not put your M.A. into a false position, because your M.A. would only correspond to the B.A. at Oxford or Cambridge, and could not compare with the M.A. got by examination?—I think it would unquestionably be disadvantageous.

11,085. *Dr. Muir*.—Are you acquainted with the educational system of Germany?—Not from personal experience.

11,086. The characteristics of that system are, I understand, that a great part of the instruction which is given in the Arts department of our Universities is there communicated in the schools and is certified by an *abiturienten-examen*, so that the student, when he proceeds to the University, takes up the higher branches (say) of classics, and pursues special departments of them?—I am aware of that.

11,087. Do you think it is possible that under our system we can ever attain the standard which the German Universities have reached?—There is one general cause which favours German philology as compared with English, viz. that in Germany philology is a profession. It is one of the learned professions,—almost as distinctly so, I suppose, as the law or any other of the learned professions is in this country.

11,088. *Mr. Playfair*.—As a teaching profession?—Yes; and the professional eminence of a philologist depends upon his production in early life, when he is between twenty and thirty, of a monograph in some department of his subject. A great many of the best books in classics of late years in Germany have been produced in that way. A philologist is anxious to get a chair,—first to become a *privat-docent*, then an extraordinary professor, and then an ordinary professor. He looks for his promotion to his literary distinction, and he writes a monograph, which

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becomes favourably known. Everything in Germany, so far as I hear, tends towards the specialization of work in that field, and the advanced state of their school system makes the subdivision of labour very much easier.

11,089. *Professor Huxley*.—Is there not another reason,—that in Germany there is an enormous bureaucracy, and that every appointment in the gift of the State is made conditional on passing through a University?—That is so.

11,090. *Dr. Muir*.—Is it not desirable that our scholarship should be raised to the same elevated standard as the German?—Most desirable; all who are interested in it at all feel that.

11,091. Do there appear to be any insuperable obstacles to our eventually reaching that standard?—I should hope not, if we could only get a philological public.

11,092. *Mr. Playfair*.—Or if you could make teaching a distinct profession?—Yes.

11,093. *Mr. Froude*.—Is it not a matter of money, that Government should provide money or individuals give you sufficient to make it worth while?—Yes. A very important step, I think, has been taken towards it at Trinity College, Cambridge, where a thesis is required on some subject, either in science or philology, from candidates for fellowships. That thesis is taken account of in the fellowship examination. Notice of the subject is given a year previously. So far as it has gone, that has produced very good results.

11,094. *Mr. Froude*.—Are there prize essays at Glasgow?—Yes, in many of the classes prizes are given, and there are some University prizes.

11,095. Is the competition large?—Very considerable. As a rule, everything of a general literary character seems to be very attractive to the majority of our students. For example, in the Greek class, so far as my experience goes, an essay on a historical subject is done by a very much larger number than would be found for an exercise in translation.

11,096. *Mr. Campbell Swinton*.—Does the system still exist of allowing the ordinary class prizes to be decided by the votes of the students?—Yes. Last year the votes in my class for prizes agreed very nearly with my own impressions as to the relative merits.

11,097. *The Chairman*.—Do you approve of that system?—No, because, though I believe that the students are fairly and conscientiously disposed, and wish simply to choose the best men, their opportunities of forming a judgment are confined to the oral examinations of the class, supplemented by any written examination which may be held. They therefore either repeat the results of the written examination, or go upon somewhat vague and unsafe data.

11,098. *The Duke of Buccleuch*.—Can you inform us what is the average age of the students when they first enter your class?—The youngest in my class this year, so far as I remember, is fifteen. The oldest is thirty-two.

11,099. But the majority are very young?—I think the majority range from seventeen to twenty-two or twenty-three.

11,100. *The Chairman*.—Are there any suggestions you would like to make upon any of the other heads of inquiry?—None.

Adjourned.

FRIDAY, 2d March 1877—(*Sixty-Second Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.
DR. JOHN MUIR.
ARCHIBALD CAMPBELL SWINTON, Esq.

JOHN BOYD BAXTER, Esq., examined.

11,101. *The Chairman*.—You are a Doctor of Laws of the University of St. Andrews?—Yes.

11,102. Are you a member of the General Council of St. Andrews?—No.

11,103. You are President of the Society of Procurators of Dundee?—Yes.

11,104. And we all know that you have been for many years Procurator-Fiscal of Forfarshire?—Yes.

11,105. There has been a scheme mooted in Dundee for some time back, I think, with a view to found a college there?—Yes.

11,106. We shall be glad to hear your views upon that subject.—I have prepared a short statement of what has been done, and of the reasons which led to it, which, with the permission of the Commission, I shall read:—The town of Dundee, during the last half century, has increased in extent, population, and wealth in an extraordinary degree. I remember when its population was only 26,000; and now it is between 130,000 and 140,000. The population has thus increased fivefold. The wealth of the town has also exceedingly increased. Its trade and manufactures have been enlarged and developed to a wonderful extent. Coming to comparatively modern times;—in 1840 the horse-power of its steam mills did not exceed 2000. That power has increased more than fivefold. In 1858, the valued rent of real property in the town was £194,690; it is now upwards of £600,000. I forbear from quoting further statistics; for these are sufficient to show the rapid growth and material prosperity of the town. I may say it has become the second commercial city in Scotland. But I regret to have to add that the means of education have not, in any corresponding degree, improved with our commercial advancement; and many of our citizens have for some time felt it as a reproach, that in educational facilities very little improvement has been made during the last half century. In that respect Dundee, at this day, occupies very nearly the same position that it did in the time of the last generation. The seminaries of learning have almost remained at their former humble position. In 1874 a movement was made, with a view of remedying this evil, and of affording to the young men of the town the means of studying the higher branches of literature and science within their own bounds. The directors of the Albert Institute (an institute chiefly for the purpose of establishing and maintaining a public library and museum) took up the subject with earnestness. At first it was thought that the opening of some classes, to be conducted during two or three evenings in the week by professors from a neighbouring University, might for a time suffice. But, on further consideration, it was concluded that such a scheme would be much too limited; and that, in order to insure the object in view, and to secure the interest and co-operation of the public, any institution to be founded must possess a

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distinctiveness and individuality of its own, and exhibit in its constitution elements of durability and comprehensiveness,—that, in short, nothing less than the establishment of a college would supply the present educational wants of the town, in which college should be taught, in the words of John Owens, ‘such branches of learning and science as are usually taught in our Universities.’ The directors of the Albert Institute, holding these views, drew up a scheme for erecting a college in Dundee, —a printed copy of which I beg, with your permission, to lay before this Commission, with this observation, that it was not proposed that its suggestions should be final, but only tentative, and subject to such alterations and improvements as should result from future consideration and discussion. This scheme was communicated to the Magistrates and Town Council of Dundee on 28th November 1874, with the suggestion that, if it should be approved, a public meeting of the inhabitants should be called for consideration and further action. The Town Council entertained the proposal favourably, and the scheme was afterwards printed and widely circulated; and a public meeting, on the invitation of the Magistrates and Council, was held in Dundee on the 16th December 1874. The meeting was a very numerous and influential one; and, after discussion, they came to the resolution that, ‘being impressed with the importance of a knowledge of science and literature advancing with the increase of the population and wealth of Dundee, it is desirable that a college be established for the promotion of the higher branches of education in the town and district.’ A large committee was accordingly appointed to perfect a scheme for the establishment of a college; to confer with the University of St. Andrews, with a view to the incorporation of the proposed college—by affiliation or otherwise—with that University; and with power to take all necessary steps to carry out the objects contemplated. A sub-committee was afterwards appointed, who had some correspondence with the professors in St. Andrews and other learned men; but, while they were collecting information on the subject remitted to them, a dark cloud suddenly gathered and settled over the trade of the town, which paralyzed their energies, and they soon found it would be vain to appeal to their fellow-townsmen, who were extensively engaged in the commerce of the district (then suffering under the severe depression), to raise the large sum, which it was thought would be necessary to establish the proposed college, and provide the requisite endowments. I am sorry to say that, ever since, that cloud has rested on the town,—so densely, that it is not within the oldest memory when such a deep and continued depression of commercial interests existed. From 1874 there has been no improvement, and at this day, few, if any, favourable symptoms of returning prosperity can be discerned. In consequence, the proposal of establishing a college has necessarily been in abeyance. I am, however, confident that the same spirit, and the same conviction of the necessity for the contemplated institution, still exist: and that, as soon as the present low condition of trade shall have passed away (be that when it may) the subject will be resumed with earnestness and hope. I have already referred to the University of St. Andrews, and to a suggestion, that if a college were to be instituted in Dundee, it should naturally be affiliated with that University; so that work done in our institution should, *pro tanto*, be recognised as University work, and so that its students might present themselves at University examinations, and in virtue of their attendance at Dundee College, might ask that they should be regarded as University students, and, if found worthy, should be admitted to such academical degrees as their classes and learning might qualify them for. We thought

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that affiliation with a University would raise and maintain the character of the college, and would elevate it above the level of a mere mechanics' institute; and, besides, that some such stimulus as University honours and advantages might be required to attract students, and engage their attention; as even in old-established institutions degrees, scholarships, fellowships, etc., are found necessary to sustain the industry and earnestness of their members. The promoters of the scheme for a Dundee college did not desire to aim at a separate University charter, but only at affiliation; and it was believed that, by affiliation with St. Andrews, the old establishment would give dignity and character to the new, and the new would give freshness and vigour to the old. We adopted the opinion of the Bishop of Exeter, that it is of great value 'that there *should be* those local colleges, and it is also of the greatest value that these should be connected as closely as possible with the great Universities, which have so many advantages, to enable them to serve their "local sisters," by constantly drawing up their standard; by giving them high aims and the support and sanction of their own prestige; to make them feel that, though they may be planted in places where the chief purpose of men in all their studies is to enable those studies to subserve their particular occupations, yet that there is always a higher aim in all studies than the subserving of any occupation whatever; and that the pursuit of knowledge, for its own sake, is really that which elevates a man in the scale of education,—which gives to knowledge its life and power, and which makes knowledge elevate and purify those who are truly in search of it.' No definite agreement was, however, come to between the promoters of the scheme in Dundee and the University of St. Andrews, although a good many private communications passed between them. It was understood that several of the professors were favourable to the scheme, while others found objections to it. It was, in particular, objected, that the creation of a new college in Dundee would injure St. Andrews, and that, considering the proximity of the two places, such a college was unnecessary. The Tay Bridge, it was said, would soon bring Dundee and St. Andrews so near, that there would be no difficulty in students attending college at the latter University. It was answered that no doubt the opening of the Tay Bridge will bring St. Andrews and Dundee nearer to one another; but the advantage will be more in favour of social and commercial than of academic life. Although trains may run between the two places in forty minutes, they would not suit all students; and, at any rate, three hours each day would necessarily be spent in travelling backwards and forwards in early mornings and late afternoons, chiefly in dark gloomy days; while, between classes, the non-resident students would have no settled resting-place, and the trouble, the inconvenience, and the fatigue of daily journeys (especially in winter and during stormy and inclement weather) would deter many, if not all, from undertaking such continuous and trying journeys. The opponents of the Dundee College scheme also said that at least there must be no competition between the colleges—no 'duplicate chairs'—as St. Andrews would thereby materially suffer. But (1) the number of students from Dundee attending St. Andrews College is very small, so small indeed as to render the objection powerless. Many now attend classes in Edinburgh; and, if the average number of students in Arts from Dundee attending St. Andrews during the last seven years and the amount of their fees were to be ascertained, it would be found that the pecuniary loss to the existing faculty—even if no student from Dundee were to reside in St. Andrews for the future—would be *very trifling*. (2) Even those who deprecated duplicate chairs

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and said that all that Dundee required was a scientific institution, admitted that there must be such duplication in pure mathematics, in physics, chemistry, etc. On the desirability of teaching art and science, literature and physics together, we held the opinion expressed by Professor Jowett, while advocating the institution of the Bristol College, that it was right and profitable 'to bring together different branches of study; and it was not desirable that literature should be separated from science, or that the physical should be divided from the moral sciences. They were found to be necessary to one another. Like men, they should live under one roof, that they might learn to be one family. The great end and purpose of a liberal education was not so much to make a man an engineer, or a miner, or a doctor, but for the sake of improving the mind, and even to fit men who have spent their days in business, to pass their leisure hours in higher and nobler pursuits.' But we said further, even admitting that some small injury might result to St Andrews, that such inconsiderable loss could not be set against the great injury which would be inflicted on a town with a population of 130,000 or 140,000 people, by being deprived of the benefit of a national University, and of the vast advantage of having its youth educated at home in the higher branches of knowledge. In enumerating the many advantages which a local seat of learning had over great Universities at a distance, high authorities have put this in the fore front—'That its students could, live at home;' 2d, 'There are hundreds of students in our large towns who cannot afford a University education at a distance, but who have nevertheless a taste and zeal for knowledge, and who earnestly desire improvement, but have not the opportunity of education offered to them. We cannot bring this class to the Universities, and therefore we must take the college to them.' A third reason for our college was that there were some branches of knowledge, such as medicine, engineering, etc., which can hardly be taught successfully except in the great centres of industry. And, in point of fact, all the great Universities of Europe spring up in great cities. Another and not the least advantage, which, we felt satisfied, would result from the establishing a college in Dundee was, that we would have among us a number of men whose lives were devoted to the advancement of learning and science, and whose influence and example would do much to raise the tone of our population. I prefer to give our opinions on this particular in the words of the learned men to whom I have already alluded. Professor Jowett said, on the occasion I have already referred to, that 'The presence of a body of intellectual men in a commercial city was an advantage which could hardly be overrated.' And the learned bishop also, whom I have already referred to, gave expression to the same sentiment, 'You can hardly over-estimate the degree in which study will be stimulated, and not only stimulated, but improved and facilitated by the presence of living men who have devoted their lives to study and to giving guidance to others endeavouring to follow in their steps; supplying that sympathy, that constant comment, and that interpretation which the present and living teacher alone can give. There is hardly anything,' continued that learned person, 'which has so great influence upon men as what may be called the infection of living example; and every true teacher is also, at the same time, a student.' I cannot express to you how much we in Dundee require the presence and influence of such living examples, to raise us a little above the exclusive pursuit of money, and to elevate our minds and thoughts to something nobler and better—how much we require an institute in our populous, busy town, to bear witness for a life that lies outside of the bustle of commerce and material prosperity, and tend to

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raise the standard of morals and intellectual culture and advancement among us. We do not ask for any public grant of money. We proposed to raise what was required among ourselves. As I have said, we did not aim at a separate University charter, but only at affiliation or some equivalent advantage. There is not a town in Scotland of the same magnitude and importance as Dundee which has not this great advantage that parents are enabled to give their children, while under their own eye, the best temporal blessings they can bestow upon them, viz. the blessing of a high and liberal education. In these circumstances, we wish to draw the serious attention of this Commission to our peculiar case and our necessities, so that some way may be devised or suggested whereby a community such as ours, numbering nearly 140,000 people, having no adequate means of education, but who are willing to raise the necessary funds within themselves, might institute a local college with academic privileges. We would be willing, if judged necessary, that the constitution of our proposed college should first be approved by some learned and competent authority; but having been so approved, we would desire that it might be admitted to affiliation with a neighbouring University, or otherwise that it might be so countenanced, recognised, and privileged by law, that its character might be raised to its proper standard, and its students enjoy those academical advantages which are enjoyed by graduates in the Scottish Universities; for instance, that our students having gone through a prescribed curriculum, should be entitled to apply to a Scottish University, and, if found deserving after examination, should be admitted to such academic degree as their learning should appear to merit.

11,107. I should like to ask you a few questions upon matters of detail. Had you and your friends before you the relations which subsist between the University of Durham and the town of Newcastle?—Yes, I had seen something about them.

11,108. You are aware there is a scientific college at Newcastle in connection with the University of Durham?—Yes.

11,109. And there is also, I believe, a separate medical college or medical faculty?—I think so.

11,110. You are not acquainted with the details of that scheme are you?—No.

11,111. When you speak of a college which would be complete in itself (as I understood you), what classes would you propose to teach there?—At first we proposed to start as is shown in the printed document I alluded to; but this was drawn up rather hurriedly.

11,112. Still, you may be able to give us a notion what kind of thing it was intended to be?—We intended to raise £150,000.

11,113. That, you think, would be sufficient for the purpose?—Yes, to commence with.

11,114. Including the expense of buildings and everything else?—We might do as was done in the case of Owens College, Manchester, where they began by renting premises; but I think they had only £100,000.

11,115. But the point I was inquiring about was as to the subjects you were going to teach. Are these stated in your document?—Yes.

11,116. I see they are English literature, logic, chemistry, anatomy, natural philosophy, engineering, natural history, or Greek, Latin, and mathematics. What do you mean by the alternative, 'Natural History or Greek'?—There was great objection, from the professors' standpoint, to Greek and Latin classes being instituted.

11,117. So far as this paper is concerned, apparently you had not come to any definite conclusion as to what classes there should be?—No.

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11,118. But that is one of the things I should like to know. Is it an essential part of your plan that there should be a complete Faculty of Arts?—If possible.

11,119. You would desire that, if possible?—Yes.

11,120. A complete Faculty of Arts, of the same constitution as in the other Universities?—Yes.

11,121. Do you contemplate that your students shall matriculate at the University of St. Andrews?—I do not think that was duly considered.

11,122. What do you precisely mean by your college being affiliated to the University?—That the students should be members of the University.

11,123. You mean, entitled to have University degrees conferred upon them?—Yes.

11,124. If they were found sufficiently qualified to receive them?—Yes.

11,125. But not receiving any part of their education at the University?—Unless it were necessary to supplement it so as to correspond to the curriculum at St. Andrews.

11,126. But what you would desire, as I understand it, is that you should be able to give the whole of that training at Dundee?—Yes. I do not suppose we should be able to do it to start with, but, if we were able afterwards, we should be entitled to compete for degrees.

11,127. But the result of that would be, so far as degrees in Arts are concerned, that the University of St. Andrews would be called upon to examine and graduate students who had received no part of their education at St. Andrews?—Yes.

11,128. Do you not think that is rather inconsistent with the Scotch University system?—It may very possibly be so at present.

11,129. *Dr. Muir.*—Do you know what is the relation of the college at Bristol, which you have been describing, towards the University of Oxford?—I believe the Universities of Oxford and Cambridge were very favourable to it. I do not know exactly what arrangement they came to, but I have read in the report that they were very favourable, and gave it countenance.

11,130. But there is no relation established?—Not that I am aware of.

11,131. *The Chairman.*—You intend, as I understand, to endow the professors of this college out of the money you are to receive by subscriptions?—Yes.

11,132. Are those professors in any way to be associated with the professors in the University of St. Andrews? Do you mean that they should be part of the *Senatus Academicus* of the University?—Yes; I think so.

11,133. But if you carried out your scheme to the full extent you have suggested, what community of interest would there be between the two sets of professors?—I do not see there would be much community in some respects.

11,134. Then, what is the use of assembling them in one Senate if they have no interest in common?—They must all have the same general interest in the promotion of education.

11,135. But they are promoting two separate institutions?—There is very little dependence upon Dundee at present on the part of St. Andrews. I believe that last session we sent only two students to St. Andrews.

11,136. I understand that; but the effect of what you have suggested—to have a complete Faculty of Arts in Dundee—would be, that there

would be a competition between the Faculty of Arts of St. Andrews and that of Dundee?—To some extent there would be.

11,137. That would be inevitable?—Yes; but we go very little to St. Andrews.

11,138. I am aware of that, from what you have already stated. Do you contemplate that your college should in any event teach medicine?—That was thought of, but it was considered too large an extension.

11,139. If the institution of a school of medicine in Dundee were otherwise practicable, the large population of that town would afford considerable advantages for study?—Certainly; we have an infirmary and a large population of working people.

11,140. Can you give us any idea of the size of the infirmary? How many beds does it furnish?—I do not at this moment recollect; but it is a large institution.

11,141. When you speak of raising £150,000 to found this college, have you at all considered what proportion of that would be required to endow the professorships?—Yes; it is stated in that pamphlet.

11,142. In this paper I see you contemplate giving £500 a year to each of six chairs—English Literature and Logic, Chemistry, Natural Philosophy, Engineering, Natural History, Mathematics.—Yes, that was the idea.

11,143. That would amount to £3000 a year. What capital would you assign to that income? You could not invest your money to better advantage than 4 per cent?—No, and that would represent £75,000.

11,144. Which would leave you £75,000 over.—Yes.

11,145. Did you propose that that should be invested in buildings?—Yes, we say so; it was intended to provide class-rooms, and to defray insurance and other necessary outlays.

11,146. Now, suppose a college of that limited character were instituted, with those six professors, do you think it would not be possible so to associate the college and the University of St. Andrews, that to some extent the same professors might be available in both places?—I should doubt that.

11,147. Do you not think that the Professor of Mathematics might teach in both towns very well?—I think not.

11,148. How many hours a day do you suppose the Professor of Mathematics to teach in one place?—Not many hours, but he would require to be going so constantly backward and forward that I do not think it would do.

11,149. Suppose that in the early part of the day he taught in the one place, and in the later part of the day in the other place. Is not the evening rather the best time for Dundee?—No, I think not.

11,150. We have had some evidence to that effect.—We have had evening classes or lectures, and they have been remarkably well attended.

11,151. So we understand; and it has been represented to us that for the population of Dundee the evening is the most desirable time of the day for receiving instruction.—I think not,—not for the people who would attend the college.

11,152. Then, what time of the day would be the best for them?—The forenoon.

11,153. Suppose the Professor of Mathematics taught for two or three hours in the forenoon in Dundee, and that daily for five days in the week, do you think there would not be time for him to do some work in St. Andrews also, allowing for the forty minutes travelling between the two places?—It would be pretty hard work for him, I think. We do not think it would do. We should wish our professors resident among us.

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11,154. *Dr. Muir.*—Could not the thing be managed mainly by assistants, with the occasional intervention of the professors?—I am probably not well qualified to say; but I think not.

11,155. *The Chairman.*—The £75,000 which you have over, after providing for the six professors, would require to be appropriated to some extent in providing laboratories and apparatus?—Yes.

11,156. Have you estimated at all what amount would be required for that purpose?—We did not go into minute particulars, but we thought we had mentioned sufficient to meet it.

11,157. The classes which you propose are just those that do require a good deal of laboratory and apparatus.—Chiefly.

11,158. Supposing the present commercial depression to pass, do you not think that the money to be raised might come to a larger amount than you have mentioned?—Possibly it might.

11,159. In order to realize anything like your ultimate proposal, you would require a good deal more?—I think that ultimately we should succeed in what we contemplate; there was great zeal and spirit for it at the time.

11,160. *Mr. Campbell Swinton.*—When you speak of the educational deficiencies of Dundee at present, do those deficiencies arise entirely from the want of local opportunities for youths being educated by study at home, or do they in any degree arise from a want of due appreciation of the higher branches?—I would say from both causes.

11,161. Have you any idea whether any considerable number of the more wealthy inhabitants in Dundee give their sons a University education?—Not to the extent they should do, I think.

11,162. You said that only two students went to St. Andrews from Dundee?—I would not be certain, but it is a very small number.

11,163. Do any considerable number go to Edinburgh or Glasgow?—I think a number go to Edinburgh. The facilities of railway communication are so great that proximity is not of the same value that it was.

11,164. *Dr. Muir.*—Could not the object at which you are aiming be in part at least attained by the institution of improved secondary schools, and partly by the institution of Mechanics' Institutes?—We do not think that would be sufficient. We have a High School at Dundee, but it is preparatory,—chiefly elementary, I may say. We need something to raise us higher.

11,165. *Mr. Campbell Swinton.*—Are there no unappropriated funds in Dundee, or endowments not at present of any use, that could be appropriated?—There are endowments, but they are for special purposes.

11,166. Special educational purposes?—Yes, many of them.

11,167. Are they well administered?—I do not know sufficiently to enable me to give a definite answer.

11,168. Suppose you could not get all the scheme you have mentioned, do you think no benefit would be derived from lectures delivered by St. Andrews professors on scientific subjects?—Not much; I think we require consistent, systematic, painstaking teaching more than occasional lectures.

11,169. The lectures they have given were very much of a popular kind?—Yes.

11,170. Attended by both men and women?—Yes.

11,171. And in the evening?—Yes; I do not think they did much good.

11,172. *Dr. Muir.*—Would you be favourable to ladies being educated in your new college?—I would have no objection.

Adjourned.

FRIDAY, 16th March 1877—(*Sixty-Third Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

THE DUKE OF BUCCLEUCH.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

Professor MEIKLEJOHN, examined.

11,173. *The Chairman*.—You have been recently appointed to a chair in the University of St. Andrews?—Yes.

11,174. What is the name of it?—It is called by the name of the Theory, History, and Practice of Education.

11,175. Recently founded by Dr. Bell's Trustees?—Yes.

11,176. Do you think it expedient to institute any new degrees in the University?—I think it is very important, for the sake of the teaching profession, that you should enable men who want to become teachers to spend a few years at the University, if possible; and, as it is often difficult for them to get a full course, if they could prove that they had studied at home, and were good scholars in one or two subjects, and could pass a good entrance examination, I should be inclined to recommend that they might be allowed to graduate as B.A. after an attendance of two, or at most three, sessions.

11,177. Then you would institute a new degree of B.A. for the benefit of teachers alone?—I should be very much inclined to recommend that. The work of teaching has been a good deal neglected, not only in England, but even in Scotland,—that is to say, men have taken to it, not from choice, not because they thought it a good thing to do and a good way to spend their lives, but because they were driven into it by necessity, by pressure of circumstances, or as a means of getting on to the Church or to the Bar.

11,178. Would your object not be equally attained by giving them certificates instead of a degree?—I should propose this degree and this reduction of the attendance as a mere temporary measure, until teaching was as well paid and took as good a place socially as the Bar, or Medicine, or the Church. But everything must be done by degrees; and you will not at once get men into the teaching profession who will be able pecuniarily to pass four years at a University either in England or in Scotland.

11,179. But suppose that you do encourage them and get them to attend for two or three sessions, would a certificate not be a sufficient mark of what they had done, instead of instituting a degree for the purpose?—The B.A. degree exists in England, and a man can get it by working for three years at an English University. It would be a pity not to put a certain University stamp upon a teacher if he shows himself worthy of it, and it is by a degree alone that the University can give him such a stamp. A certificate is not a thing he can sign at the end of his name. He cannot show that he holds it. Certainly we have the term 'certificated teacher;' and that is a certificate which is granted by Government upon a very good examination. At the same time, I do not see why we should follow that analogy. We have had the B.A. formerly in Scotland, and I should think we might find good reasons for resuscitating it.

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11,180. *Dr. Muir.*—What class of teachers are you contemplating,—those who are in the secondary or those who are in the primary schools?—Both. I think we ought as soon as possible to look to the breaking-down of any hard-and-fast line between the schools, so that a man who shows by good scholarship and skill in teaching that he can pass from a primary to a secondary school should be allowed to pass. Of course in England the barrier is very much more distinct than in Scotland; in fact, in England it is impossible for a certificated primary school teacher to pass into a secondary school.

11,181. Do you know whether in Germany it is essential that teachers should have a University degree?—They have not necessarily a University degree.

11,182. *Mr. Campbell Swinton.*—When you speak of the analogy of England, you do not contemplate that your degree of B.A. should denote the same amount of proficiency which the English B.A. denotes?—It is impossible to say how little proficiency the ordinary English B.A. denotes.

11,183. But if a man takes a mere pass, it represents all the University training he gets, for the M.A. denotes nothing higher?—I am aware of that. The M.A. denotes merely that he has kept his name on the books for a certain time and paid a certain fee.

10,184. Would you not be afraid that the revival of the B.A. degree would have the effect of leading men to remain satisfied with that, and prevent their going on to the M.A., inasmuch as in England the B.A. represents as high an amount of attainment as the M.A. does?—Yes, there is a danger of that; but I have been advocating this for teachers only in the meantime.

11,185. You could scarcely institute a degree to be open to only one class of men?—There is a difficulty there, but in point of fact it works so. You very seldom have a doctor taking the M.A., he generally goes straight on to his M.D. The B.A., before it was abolished, was practically taken by men who had not time to go on to the M.A., and who were going to be teachers or were going into the Church, and who wanted the ornament of B.A. for some practical purpose.

11,186. *The Chairman.*—Do you think it would be expedient to establish lectureships for any purpose in the Universities?—I think that lectureships on the methods of teaching certain subjects—short courses of lectures—might be attached to such chairs as Greek, Latin, Mathematics, Natural History, and English Language. Let us take, for example, the chair of Natural History. It might be said that I ought to lecture upon such a subject; but I know nothing about it. I hope to learn, of course, but still I should like to discuss with the professor the best methods of teaching and introducing natural history into schools; and I should like him to give a course of twelve lectures on the best way of putting the subject before young children—when would be the best time to begin; what would be the best subjects to begin with; and what steps ought to be taken to lay the subject before the pupils—so as to create in the growing mind a real liking for the subject, so that they might go on with it after they leave school. That is a thing which the professor might well think about. The Professor of Greek, again, takes a man in hand—sometimes very imperfectly trained, sometimes better—but there is no well understood method of teaching natural history, nor is there even a well understood method of teaching Greek, and the professor might well give a course of ten or twelve lectures upon that subject to men who are going to be teachers; that is to say, his thought and his knowledge of the whole subject would pass down to the very beginnings of instruction

on that subject in the different schools of Scotland, through all the men who came under his influence.

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11,187. The lectures you contemplate would be delivered very much in aid of the object of your chair?—Yes, in point of fact that would be so. I am Professor of the Theory, History, and Practice of Education. But it is an enormous subject, and I should certainly like some persons to take a part in the Practice of education. It would really be taking part of my field; but no one man, or even a set of men, could hope to cultivate that field in a thorough-going way.

11,188. How do you propose that those lecturers should be paid? Where are the funds to come from?—I cannot say.

11,189. Have you considered what amount of remuneration would be sufficient?—Yes. I think they might deliver ten or twelve lectures, and be paid at the rate of five or six guineas each lecture. I think they would consider that very decent payment. It would be an addition to what they receive at present.

11,190. Do you propose they should charge fees?—I have not thought of that. I do not see it would be at all necessary.

11,191. Not if you could find the funds otherwise?—That would come afterwards. In point of fact, the men who have hitherto gone into the teaching profession have generally been the poorest of the students, and what we want is, to encourage them in the meantime. But supposing they were charged a fee of one guinea for two or three sets of those lectures put together, that might meet the case.

11,192. *Dr. Muir.*—Would you be likely to find such men as you would require, because they would need to have some other sources of income besides that?—I am supposing that those lectures are delivered by the professors of the different subjects; I am not suggesting that you should get additional men.

11,193. *The Chairman.*—I thought that the lecturers were to be separate from the professors?—I do not know where you would possibly get men for such a sum.

11,194. Then what you do contemplate is that the professors of those subjects should be invited to give lectures of the kind you have described?—Yes, so that their minds would actually be turned upon this question of engineering their own subjects, which hitherto has hardly been attended to.

11,195. *Dr. Muir.*—And it would at the same time benefit themselves?—Yes; they would have to raise and solve many problems which they had never thought of before.

11,196. *The Chairman.*—In your own chair of Education, do you think there is anything required in the way of apparatus or accessories of any kind?—I should like very much to form a museum of all the best apparatus I could pick up in Germany, France, Holland, and England, so that I could lecture upon it, and show where it was useful and where it was in danger of being over-used, and what would save the time of the teacher, and the brain and nerve power of the teacher, and so on. I think a good deal might be done in that way to save labour and to do away with friction.

11,197. Will you explain shortly what sort of apparatus you mean?—For example (I have made a small collection myself, but I should like a more complete one), I should like a complete set of all the best maps that have been published in Berlin, Vienna, and Munich,—a complete set of the best models of sections of the earth,—raised maps, orographic maps, river maps; and a complete set of apparatus for teaching geography, so as to make geography a useful, practical, and connected subject. Well,

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I should have all these in a museum, and I should take up different portions of them and point out at what period of the study of geography this or that particular map would be useful,—where plans were wanted,—and so on; and I think that by such means we could make the study of geography really a little more useful than it is at present. Then, again, one wants to show apparatus for teaching arithmetic,—teaching fractions for example, by presenting certain cubes to the eye. There is a great deal of such apparatus. One kind is better than another: and we want to give the reasons why it is better, to show why we should use this in preference to that, and so on.

11,198. Would you consider school-books a necessary part of your apparatus?—I think it would be well that we should have a complete set of all the different school-books that are in use in England and Scotland, and that the professor should be able to show why one was better than another, and why the plan of this was better than the plan of that, and bring the teachers to reflect in a careful way upon the different qualities of a school-book, and what went to make a good school-book, and why one was framed in one way and another was framed in another way.

11,199. *Dr. Muir.*—Do you mean in English alone, or in other languages also?—I mean in English, Greek, Latin, French, German, etc. I should take all these, and students would then find out not only what was in itself the best, but the particular book that suited their own methods and habits of thinking, and they would consult the professor and see why one book was better than another, what was the particular feature that would recommend it to a school, and so on. All that wants thinking out. It has all been left to tradition, or to the pushing of their trade by men who have an interest in this or that particular book.

11,200. *The Chairman.*—Are you engaged at present in lecturing upon your subject?—Yes, I lecture in St. Andrews to a class of ten students, and in Dundee to a class of eighty-seven,—both very good classes. The latter is a very short course, not a complete one.

11,201. What is the number of lectures in the Dundee course?—I shall have been there ten Saturdays, and I give two lectures each Saturday. I lecture two hours,—which I consider equal to twenty lectures.

11,202. You have done that?—No, I have two Saturdays still to run.

11,203. That will be the amount then?—Yes.

11,204. *Mr. Campbell Swinton.*—Are the students who come to you there all intended for the teaching profession?—They are mostly in the teaching profession.

11,205. Are they both men and women?—Yes. Many of them are heads of schools, many are assistants, and many are governesses. Of the public, who are not engaged in education, and who come merely from interest in the subject, there are, I think, seventeen.

11,206. You teach the two sexes together?—Yes; they all sit in the same room in the Dundee High School.

11,207. *The Chairman.*—Have you any suggestions to offer upon the subject of bursaries?—I think that in St. Andrews we are very ill-off for bursaries. If you could give us power to reorganize our bursaries and throw the poor bursaries of £10 or so into one lump sum, and if we could also get a very small sum, say £1000 a year, to be divided into perhaps ten bursaries of £50 each, and twenty of £25 each, to be thrown open to the whole of Scotland, I think we could get a very large number of well-prepared men to come and sit for them; and by keeping the standard high, we could do a great deal of good to our own University and to education in Scotland. At present, for example, what happens is this: In the

United College there were in the beginning of last session seventeen bursaries, and only eighteen men sat to compete for them, consequently there was only one man plucked. I think that was putting him in a very invidious position.

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11,208. That was a competitive examination?—Yes, and there was only one man who did not get a bursary.

11,209. You can hardly call him plucked; he did not succeed.—Exactly, and it was very unfortunate. Instead of there being eighteen to compete for seventeen bursaries one would like to see a hundred competing, if the bursaries were worth competing for.

11,210. You think that if you had such bursaries as you recommend, you would attract more students?—Decidedly so, and a very good class of students.

11,211. *Mr. Campbell Swinton.*—What was the value of those bursaries?—I am not sure, but my impression is that they were from £20 down to £10, and there might be some as low as £5. In point of fact, those small bursaries do not attract good men; and if there are only eighteen competing for seventeen bursaries that cannot be said to be an open competition in any sense.

11,212. Do you think that £25 is the lowest amount a bursary should be?—I think so. I think £25 would keep a man who lived very carefully at St. Andrews for six months. It would be at the rate of about £1 per week; and that would be about the lowest.

11,213. *The Chairman.*—Have you anything to add upon that subject?—No, but if you will allow me I should say, in reference to the question of a museum, that I should like to have two model libraries,—one for primary and another for secondary schools, so that we might have the best books chosen out of English literature,—the best books of travels, the best works of fiction, and so on,—and when a teacher wanted a list of books for a primary or a secondary school he could send to the library and get it at once. That would encourage original reading in the schools, and not simply the reading of school-books.

11,214. I understand the utility of your being able to furnish a list of the best books, but what use do you propose to make of the books themselves in connection with your chair?—They would be there for the students to examine and to become acquainted with at first hand. Instead of taking them on my authority, they would form a knowledge of the books, and thus be able to recommend them on their own authority. In addition to the foundation of new bursaries, I think we have need of a travelling fellowship, to be confined to teachers, so that we could send out a teacher who would visit the best schools in Germany, Holland, and other places on the Continent, spend a few days in each school, and see what was going on and what methods were used there. That would be very much better than for him merely to be told about them by the professor. He would see them with his own eyes and hear them with his own ears.

11,215. You speak of only one travelling fellowship?—Well, if you could give me a dozen I think I could place them in the right direction.

11,216. What income do you propose giving your travelling Fellow?—I have not thought of that, but £100 a year would be a very fair allowance, and he could spend six months on the Continent very well upon that. He could keep himself very well and see the best schools in the Continent. It would be expected that he should travel third-class and economize in every way; and he would keep a diary and send a report to the professor, which would be of use.

11,217. Do you mean that he should hold the fellowship for only one

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year?—I think so. The benefit of that would be that it would be distributed over a larger surface, and you would have a larger number of Fellows.

11,218. In short, that would just be presenting a deserving man with £100 to enable him to travel and look into the education on the Continent?—Yes,—compelling him at the same time to show that he used it properly.

11,219. *Mr. Campbell Swinton.*—If he was to derive any benefit from that fellowship, he would require to be thoroughly up in French and German before he started?—I think a man who knew how to set about it would learn to speak and read German in two or three months sufficiently to benefit by such a journey; and one hopes that the coming generation of teachers will be able to read the best books on education in French and German. I do not think that is asking very much of them.

11,220. *The Chairman.*—Is there any other subject on which you have any suggestions to offer?—With regard to the financial position of the University, I have only to remark that St. Andrews is miserably poor.

11,221. That seems to be a very prevalent opinion in St. Andrews?—Yes. What I mean is this, that I do not think there are in England or in Scotland so many good men doing so much good work at so low a rate of remuneration; and while there is a plethora of work in other Universities, we are suffering from a deficiency of students. Instead of about 150 students, which is the number we have, we could very well teach 300 or 400.

11,222. Can you suggest any mode of attracting more students, except what you have already mentioned in the way of bursaries?—I think that would be the most powerful way of attracting students,—founding bursaries open to the whole of Scotland.

11,223. *Dr. Muir.*—Do you think that would multiply the number of your students very much? Would the unsuccessful men remain at St. Andrews to any extent?—I think it is likely they would remain. At the same time, St. Andrews and its fitness for a University would become better known. It seems not to be so well known as it might be.

11,224. *The Chairman.*—It was more largely attended in former times?—Yes; during the last ten years there seems to have been a falling-off.

11,225. To what do you attribute the falling-off?—I am afraid that would resolve itself into personal questions which I could hardly answer.

11,226. Do you not think that the tendency of the present day is to Universities that are situated in large towns?—Yes, and that is an unfortunate tendency.

11,227. Very possibly; but how would you correct it?—In some such way as I have suggested,—by handicapping, by giving some counterweight to small Universities like ours, so as to induce men to come. Give us more bursaries,—bursaries better worth having.

11,228. But if you are to rely upon private benevolence for providing such bursaries, I am afraid the larger Universities would beat you in the competition, and get more bursaries than you would?—Yes.

11,229. The only way in which you could be put upon an equality with them would be by a grant of public money for the purpose of founding bursaries. Does it not come to that?—Well, I should be very glad if you were to endow St. Andrews with a few thousand pounds a year for that purpose.

11,230. *Dr. Muir.*—Have you been able to form any opinion whether the prevalent mode of teaching languages in our Universities and schools is as good as it might be? Do you not think that the ground might be

got over in a shorter time and that more solid instruction might be communicated?—I am of opinion that it might be got over in a shorter time and more solid work done. Are you referring to ancient or modern languages?

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11,231. To both.—I think the whole ground wants careful looking over, and I am convinced that shorter and better methods than those we have might be adopted in Latin, Greek, French, and German, which are the ordinary school languages.

11,232. But you could not enter into details on the subject at present?—I should prefer, if the Commission would allow me, to write out a Memorandum on the subject, as I have not collected my thoughts so as to be able to lay them fittingly before the Commission at this moment.

11,233. *The Chairman*.—We shall be very much obliged to you if you will do so.

Professor LISTON, examined.

11,234. *The Chairman*.—You are Professor of Hebrew and Oriental Languages in the University of Edinburgh?—Yes.

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Liston,
Edinburgh.

11,235. And have been so for a great many years?—For twenty-nine years.

11,236. You were appointed in 1848?—Yes.

11,237. What number of students have you in your class?—Thirty-eight or thirty-nine; I have two classes, senior and junior.

11,238. And the aggregate of both is thirty-eight or thirty-nine?—Yes.

11,239. Have you any suggestions to make with regard to your own chair?—Nothing further than that I think the fees should be raised.

11,240. What are they at present?—Two guineas.

11,241. In both classes, senior and junior?—Yes; and for the third year, one guinea; but that very seldom occurs.

11,242. Can you tell us what upon an average is the aggregate amount of fees you receive in any one year?—About £71.

11,243. What is the endowment of your chair?—£300.

11,244. So your total emoluments are about £371?—Yes, upon an average of five years.

11,245. By how much do you think the fees ought to be increased?—One guinea at one step, at any rate.

11,246. Do you think three guineas would be enough?—It would be as much as the circumstances of the students would admit of.

11,247. Do you know what are the fees for the same class in the other Universities?—In Glasgow they have been raised to three guineas; they used to be two guineas.

11,248. Is that a recent change?—Within the last two years.

11,249. What are the fees in Aberdeen and St. Andrews?—I do not know.

11,250. Have you heard at all from the Professor of Hebrew in Glasgow whether the increase there has had any sensible effect in diminishing the number of students or in any other way?—My informant in regard to the advance of the fee told me that Dr. Dickson said it had made no odds on the number.

11,251. *Mr. Campbell Swinton*.—Are the fees the same in the other classes of your Divinity Faculty?—Yes,—they are two guineas over all the Divinity Faculty.

11,252. *The Chairman*.—Then would you propose that the increase should extend to the other chairs also?—Yes, to all the Divinity chairs.

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Edinburgh.

11,253. You think they should all be three guineas?—Yes, and my colleagues concur with me in that view.

11,254. *Dr. Muir.*—Do you not think that the salaries of the professors in the Faculty of Divinity should also be raised?—It would be very agreeable if they were raised.

11,255. Do you not think that is essential in order to secure the proper kind of men for the places?—I think so, certainly.

11,256-7. *Mr. Campbell Swinton.*—Are your students all studying for the Church?—I think so.

11,258. You have sometimes had students of Oriental languages?—In another class; at least I have taught in the college besides Hebrew, Arabic, Persian, Hindustani, and Sanskrit, to pupils, some matriculated, and some not matriculated.

11,259. *The Chairman.*—But when you taught a class of that kind, what were the numbers in it?—Merely one or two.

11,260. It was more like private tuition than regular University teaching?—Yes, quite so.

11,261. *Dr. Muir.*—Do you think there is a sufficient number of chairs in the Faculty of Divinity, or are there other subjects that ought to be represented?—That is *Dr. Flint's* idea.

11,262. *The Chairman.*—When you speak of your colleagues entertaining the same view as yours in regard to the fees, you mean *Dr. Flint*, *Dr. Charteris*, and *Dr. Taylor*?—Yes.

Adjourned.

SATURDAY, 24th March 1877—(*Sixty-Fourth Day*).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman*.

THE DUKE OF BUCCLEUCH.

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

DAVID H. PATON, LL.D., examined.

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Paton, LL.D.,
Glasgow
High School.

11,263. *The Chairman.*—You are first Classical Master of the Glasgow High School?—I am.

11,264. And you are a Doctor of Laws of St. Andrews University?—Yes.

11,265. Were you educated at St. Andrews?—Yes.

11,266. And you got your honorary degree from your old University?—Yes.

11,267. You are a member of the General Council of St. Andrews?—Yes.

11,268. Were you a Master of Arts?—No; I did not graduate.

11,269. For how many years have you been connected with the High School in Glasgow?—For nearly eleven years now.

11,270. All the time as classical teacher?—I was second classical master for some time, and I was afterwards promoted by the School Board to be head classical master.

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11,271. About how many boys attend the High School?—The number at present is about 426.

11,272. How many pupils are there in the classical department?—There is, I should say, an average of about 300.

11,273. How many years do they remain there?—The curriculum is five years in the classical department.

11,274. Do many of the pupils go through the whole curriculum?—Not many.

11,275. How many years do they take on an average?—The most considerable falling off is at the end of the third year.

11,276. Would you favour us with your opinion as to the propriety of introducing entrance examinations at the Universities?—I think, in the first place, that many boys leave school at far too early a period to go to the University. I believe they sometimes enter even from the second and third class of the High School.

11,277. At what age will they then be?—There are some of them possibly about fourteen or fifteen. I cannot exactly give the number of these, because I have no means of knowing at the time that they are going to the University. I only know afterwards that some boys have left for the University, possibly from the third class. I know one last session who entered from the second. The great falling-off in the classical department is from the third class,—between the third and fourth. A number of these no doubt go to business, and our fourth class consequently is small in numbers; and the fifth class is still smaller.

11,278. Suppose they went through your whole curriculum, at what age would they enter the University?—At about the age of sixteen, generally speaking. Some of them may be seventeen. Then there are inducements that boys should leave for the University from our school in this way. Of course, there is the greater freedom, and there is the less limited control of a University as compared with the strict and exacting nature of a school; and there is also the desire to get there in time to attend certain classes, so as to get class tickets or certificates from these—which certificates, I believe, are often almost the only passport to some of the professions. For instance, if they go to be what we call in this country writers, that is, lawyers, they have to attend certain classes in the University; and if they reach these classes in a certain time, this, in their idea, saves time to them, instead of going on to finish the curriculum in the High School. Another thing to be considered is the length of the curriculum of study required for some of the professions. You have only six months of a session, which is a very short time in each year; and that, in the case of a clergyman, for instance, extends to eight years. I see from the papers that there is a movement among the Free Church students to limit the period; but all these things tend, I think, to make intending students leave the school at too early a period in order to go to the University.

11,279. Is the movement to limit the University course only in reference to the theological course?—Yes. I think very possibly if they were to remain longer at school, and had to pass an entrance examination before going into the University that would help to counteract these inducements; and as that entrance examination would test the capability of the students to profit by the higher work of the University, I think it would be a good thing.

11,280. Then it would be through the authorities of the different professions that that scheme would be worked out?—Yes, if they were to take these entrance examinations as a proof that the students had passed through the necessary curriculum; but I think it is by the

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authorities of the University that the standard of examination should be fixed.

11,281. But in order to remove the inducements which the students have to go early to the University, it would be necessary that the heads of the different professions should accept a shorter curriculum at the University, would it not?—Yes, of course.

11,282. About what degree of stringency would you propose that that entrance examination should amount to? What amount of attainments would you require?—I think it should amount at least to the average standard attained, for instance, in the senior classes of our higher class schools.

11,283. What Latin and Greek authors does that include?—That would include Homer, and Herodotus, and Livy or Cicero, and to write an easy narrative of Latin prose.

11,284. That might be very well for boys who have the privilege of being able to attend such schools as yours, but how would it affect boys who come from the country? Would it not debar them from the University altogether?—I think not; and in proof of that I would refer you to the present preliminary examinations in medicine. They are not by any means contemptible, and yet they have been worked up to by a great number of young men from all parts of the country. I may refer to the objections which I understand have always been made to entrance examinations. The first objection taken to such an examination is something like this, that it would be highly injurious to close the door against those who go to college to obtain what they cannot procure at home. I meet that objection by saying that the University is intended for higher academic culture, and those who are not fit to receive such ought to go to the secondary schools, that these secondary schools are now recognised by Act of Parliament.

11,285. Do you think there is a sufficient number of secondary schools that are accessible to the students?—I should think so,—perhaps not secondary schools, but there is, I think, a sufficient number of good schools that are accessible to the pupils. What I mean is, that there is surely some good school in the vicinity, where any of these young men are living which they could attend, to qualify themselves for this examination. They have qualified themselves for the preliminary examination in medicine, which is not by any means an easy one.

11,286. Have you any means of knowing where these medical students got their education?—I have no means of knowing; but I think if you were to establish an examination, and to fix a good standard of qualification, they would find ways and means to meet it, and that would be the first thing that would raise the standard of education in the schools. Then the next objection is something to this effect, that it would be ill-advised to raise the qualifications for admission to the Universities until some improvement is made in the schools throughout the country. Now, I think if a higher standard were demanded by the Universities, that would go far to raise the standard in the schools, because the schools require to work up to the Universities.

11,287. Have you any information personally as to the extent to which the higher education is still given in the primary schools in the West of Scotland, from which I suppose the Glasgow students principally come?—In Glasgow alone, in 1876, there were at least 3000 scholars in the common schools belonging to the board receiving instruction in higher subjects.

11,288. Do you mean in Latin and Greek?—In Latin and Greek, I presume, or in other subjects.

11,289. *Mr. Campbell.*—You don't know about the Latin and Greek? —No. The information given to me was simply that it was in the higher subjects. I should not think it would include Greek to any great extent, but a fair proportion are learning Latin. Of these, 1995 were in board schools.

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11,290. *The Chairman.*—But if you don't think they get Greek, they would not be qualified to pass such an entrance examination to the Universities as you think should be established?—No; they would not if they were not getting Greek; but then if they went so far in the primary schools as even to have begun the study of the higher subjects, they would soon find their way to the secondary schools; and there is a scheme which I think might be hinted at here how that might be got. Why should School Boards not be empowered to give bursaries to enable boys who have commenced the higher subjects of study in the primary schools to continue these at the secondary school prior to entering the University?

11,291. Do you think a proposal of that kind would be acceptable to the ratepayers?—The amount which I have been told would be necessary is so small that I don't think there would be any objection to it. I have been told that one such bursary from a school board would send 1000 boys to the secondary schools. There are 1000 School Boards throughout the country, and one bursary from each would send that number of boys at least to these schools. Then I think it would be a safe calculation to say that something like 50 per cent. of these would find their way to the University.

11,292. Of what amount would such a bursary require to be in order to make it effective?—To enable School Boards to do this, and to promote secondary education generally, it has been calculated that a very small proportion, probably one-tenth of the rate, might be taken for the purpose.

11,293. You mean that there would be one-tenth added to the present rate?—Yes.

11,294. But that is not exactly an answer to my question. What amount would each bursary require to be?—I have not considered that. Then I think one object that would be gained by an entrance examination would be that it would draw the line between the work of the schoolmaster and the higher culture to be got under the professor; and the unprepared would find it necessary to remain longer at school, while the professor would be relieved from the drudgery of teaching the mere elements, and would have full time, and, more than that, he would have good material, for academic culture.

11,295. Are you aware of the existence of a class of men who come from the country anxious to enter the University, but who are too old to go back to school?—Yes, I have considered that also. These are men who at a later period of their lives have fancied that they would like to go forward to the University, and possibly come out in the Church. These are exceptional cases; but I think they ought to be taken into account, and I think a compromise might be made with regard to them by fixing an age beyond which they could enter without an examination. You might compromise the matter with them, and say, 'You are of a certain age. We will not insist upon your passing through this ordeal before you pass into the walls of the University.' Then you have to consider also that these students often distinguish themselves afterwards, when they once get into the University. Although their previous training may have been a little defective, they sometimes distinguish themselves in philosophy and other branches.

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11,296. Do you think that from the superior force of their minds they would overtake younger students?—Yes, the professors say they do. They say they make rapid strides compared with the others when they once get into their classes.

11,297. *Mr. Campbell.*—Do you think that if an entrance examination was imposed upon all students under sixteen years of age, that would effectually stop this habit of leaving the High School too soon?—I think it would, provided always that up to that age they had, without any interruption, gone through the curriculum of the High School. It would tend to obviate this overlapping of the work of the professor with the work of the teacher of the secondary school. What I mean is, that these secondary schools are now recognised by Act of Parliament as secondary schools, and I think they should be recognised by the public as such. The pupils should get a training there of a certain amount, and then pass from these schools into the University. I think that if some such thing as these bursaries, which I merely hint at, were established, the pupils would move up from the primary schools into the secondary schools; and then the School Boards could manage in some way or other that those pupils who desired to do so should eventually find their way into the University. What I would like to impress upon the Commission is, that to raise the standard of the University will distinctly raise the standard of our schools, and of education in Scotland. No doubt it would be a hardship for a time to some who are desirous of entering the University; but they would find ways and means to get up their University entrance examination; and as a proof of this I would again refer to the preliminary examinations for degrees in medicine. I have not heard of any difficulty being experienced in passing these, or getting up the work which they require.

11,298. *The Chairman.*—Do you think the majority of students would submit to the very long course of study which would be involved in several more years at school, and then to pass the same number of years as they at present do at the University?—Yes; but those who could pass this entrance examination at first would not require to do so. You have at the University just now an optional entrance examination, and if a boy can pass it he goes at once into his second year, and he can get his degree in two years and a half.

11,299. It is called the three years' course, but virtually it is got in two years and a half?—Yes.

11,300. It has been suggested to us by many witnesses that not a bad compromise would be to allow the junior classes to remain open, as at present, but to have a compulsory examination at the close of the first year, or at least before entering the second year, and to subject all students to that, both those who have gone through the first year, and those who have come direct from school; what would you say to that?—The Commissioners under the statute of 1858 made that a test, but I don't know that it has been carried out.

11,301. You mean the old Commission?—Yes.

11,302. They scarcely made it a test. They allowed those who chose to pass an examination to enter into the third years' course, but they did not exact an examination at the end of the first year from those who had been at the University?—I think they said something like this,—No student shall pass from the first year into the second until he has satisfied the professor that he is able to do so. (See Regulation 2, with reference to graduation in Arts.)

11,303. I think that has not been carried out in practice?—Well, that is an objection I have to the present system. There is an optional

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examination, and the student who passes it passes into the second year; while the student who cannot just goes back into the first year, and, no matter what is his state of preparation, he glides up from the first year into the second.

11,304. But the plan that has been suggested by some of the witnesses would not allow him to glide into the second year, because he could not enter the second year without an examination?—I would certainly give it as my opinion that that would be a good thing to do; but still, I don't think it would be such a good thing as having a stringent examination at the beginning of the first year. With regard to the standard of examination, I think it should not be any higher than can be got out of the walls of the University,—no higher than the student can get at any of the secondary schools.

11,305. And the standard you gave us a little while ago you think could be got there?—Yes. I would not like perhaps to specify authors, but it is generally known what is the standard there. Another standard is that which we now have for the bursary examinations in the Universities. There is also another standard issued lately by the Glasgow authorities, as well as by St. Andrews and those of Edinburgh. The Aberdeen authorities do not have it, because they have not adopted the scheme. That is for what are called University local examinations. These Universities appoint a certain standard, and they say, 'You can get this standard out of our walls altogether, and if you come up here and pass it we will give you a certificate.' Now, I reason thus,—If the University authorities set an amount of work which can be got at in that way, would it not be a good thing for them to set such an amount of work as they expect the students to come up with to their classes?

11,306. They think that amount can be got; but do you think it can be universally got in all parts of the country or by all students?—Yes, although I have no doubt there might be a little hardship to begin with.

11,307. *Dr. Muir*.—Supposing such an entrance examination as you have suggested to be instituted, or rather an examination preliminary to entrance, do you think that might be properly carried out by the schools themselves, as it is done in Germany? Would that be preferable to its being carried out by the University professors, or have you considered that?—Yes. I believe one of the professors in Edinburgh, Professor Sellar, has said he does not think the professors should conduct that examination. I think the same remark, from a different point of view, might possibly apply to the masters of the schools.

11,308. *The Chairman*.—In short, you think the professors might be too anxious to get the boys, and the masters might be suspected of being too anxious to keep them?—I would not put it so strongly as that. It has been stated in this way, that the professors might be too lenient in the examination papers, and that it is possible the schoolmasters might be inclined to keep the pupils longer if they could. That might or might not be; but I think a far better plan would be one which I have thought of in connection with what is done in the secondary schools. We have examiners recognised by Government. The School Boards appoint the examiners, but it is distinctly stated in the Act that there are to be examiners of these secondary schools. I have no doubt that in the course of time these examinations will become more definite and more permanent; and my idea—although it may take some time to realize it—would be that this board of examiners for secondary schools should be the examiners for entrance to the University.

11309. Would you allow the examination to take place at the schools, or would you make the students come up to the University to be

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examined?—My idea is that the examination should be uniform, and that the examination papers should be the same for all the Universities. It may be said, How can that be carried out? Well, it is carried out in the normal schools. All the normal school students pass through the same examination; the examination papers are the same for all the normal schools in Scotland; and the examinations are held at the same time by examiners appointed for the purpose—namely, the inspectors of schools.

11,310. *Dr. Muir.*—What class of persons are those examiners to whom you referred just now?—I understand the School Board were influenced in selecting the examiners for the High School by the fact that one of them was the classical examiner in the University of Glasgow; in fact I think both of them were examiners in Arts—both Mr. Kerr and Dr. Jack.

11,311. *Mr. Campbell.*—Was Dr. Jack not the mathematical examiner?—Yes, and Mr. Kerr was the classical examiner; and I think I am right in supposing that it was the fact of their occupying that position which induced the School Board to select these two gentlemen to be the statutory examiners of the High School of Glasgow.

11,312. *Dr. Muir.*—Might not the Government inspectors take part in that examination?—They might, or possibly the examiners might be appointed by the University Court.

11,313. *Mr. Campbell.*—Then your idea is that the examiners of a high-class school could, without much difficulty, determine what pupils there were fit to enter the University?—Yes.

11,314. And that, by giving them some sort of leaving certificate, these pupils might be allowed to enter the University without any further examination?—Yes. I may mention that what gave me the idea of such an examination by these gentlemen was, that at our last examination of the High School, Mr. Kerr, in his report, mentioned on more than one occasion, and I think Dr. Jack also, that, from the examination papers which passed through his hands, the boys appeared to be quite fit to go to the University, and would, he had no doubt, if they did so, take high places; and I have much pleasure in saying that they did realize all that he said they would do.

11,315. *The Chairman.*—What average number of boys at the High School of Glasgow would be able to pass that examination so as to go to the University?—The highest number in our fifth class since I have had it has been about twenty. Of course it varies considerably in different years.

11,316. Do you think they could all pass such an examination?—Yes. I think most of them could pass.

11,317. *Mr. Campbell.*—You don't think it would be for the advantage of any of the fourth years' pupils to go to the University?—I think not. The High School, as you know, competes with boys attending the Glasgow University who have been for seven years at the Edinburgh Academy. We have only a five years' classical course in the High School of Glasgow.

11,318. Has the Edinburgh Academy a seven years' classical course?—I think so. The seventh class of course falls off in the same way as the fifth class in Glasgow does.

11,319. *The Chairman.*—When you say they compete, what do you mean?—They go up on equal terms to pass that optional examination.

11,320. But at the same time the boys who have been at the seventh class of the Academy go, as a matter of course, into the second year at the University?—Yes, I think they always do.

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11,321. And you are aware, perhaps, that some of the professions, the writers to the signet, for example, admit the seventh class of the Academy as equivalent to the junior Latin or Greek class at the University?—I was not aware of that, but I think they are quite right in doing so.

11,322. *Dr. Muir.*—Have you any idea how many of your boys go annually to the University?—I could not exactly say, for this reason, that if there are boys, and I believe there are some, who go from the junior classes, they feel to come and tell me that they are to leave the school and go to the University at such an early stage, and I don't know that they have attended the University until I happen to meet them on the street, and see them with a trencher on their heads; but I have the means of knowing those who go from the fourth class and from the fifth.

11,323. *The Chairman.*—But are not these young men who go from the junior classes young men who are desirous of having a certain amount of University culture, but who do not contemplate going on for degrees? Is not that their object?—I could not say what their object might be, because I have not been able to follow them exactly in after life, and to know what they did. I have known them go away from our High School to offices, and I have been surprised in the course of some years afterwards to find them at college.

11,324. Is not that because they can attend college at the same time that they are in offices?—Yes.

11,325. But they cannot attend school?—No.

11,326. Is not that one of the attractions which take them to the University?—No doubt it is.

11,327. *Mr. Campbell.*—Have you any knowledge as to the bearing of the want of an entrance examination in mathematics on the mathematical department of the High School?—No; but I should say the same remarks apply there as apply to the classical department. Those who intend going to the University should go hand in hand with the classical department and the mathematical; but those boys I speak of who go from the third class to the University have not, I suppose, been at mathematics at all, according to their stage.

11,328. *Dr. Muir.* It was stated here by one of the witnesses that Glasgow merchants do not care about University education at all, or to send their sons much to the University in Glasgow. Is that the case in your experience?—I think it is the case to some extent, as you will see when I tell you that the great drop in our attendance takes place between our third year and our fourth. We generally take a special interest in the boys who come to our fourth and fifth classes; we say, 'These are the boys who are likely to pass on to the University;' and we inquire about them, and take an interest in them, and in the conduct of their studies accordingly. The great drop in our High School occurs before then; and I believe it is the same in the Edinburgh High School and the Academy.

11,329. Then you think that merchants do not care to have too highly educated boys as their assistants?—I would not put it in that way, or so strongly as that. I think if they got the option of a well-educated boy and another boy under the same circumstances, who was not so well educated, they would take the well-educated boy.

11,330. *Mr. Campbell.*—But they want a boy before he is too old?—Yes, I think so. The kind of work a boy gets to do in an office in Glasgow in the earlier part of his career is such that he almost requires to be pretty young to go through it.

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11,331. *The Chairman.*—You are rector of the Glasgow Academy?—
I am.

11,332. You are an LL.D. of Aberdeen University?—Yes.

11,333. Were you a student of Aberdeen originally?—I was.

11,334. And a Master of Arts there?—Yes.

11,335. And you are, in consequence, a member of the General Council of Aberdeen University?—I am.

11,336. What is the average number of boys attending the Glasgow Academy?—About 600.

11,337. How many are in the classical department?—I may state that of these 600, 200 belong to what we call the preliminary department. All the others who are regular students pass into the classical department.

11,338. To what age do they generally remain at the Academy, on an average?—I may be allowed to explain that they commence Latin at the age of ten or eleven. We have a course after that time of five or six years, having lately instituted a sixth class. They begin French at the commencement of their second year, mathematics at the commencement of their third year, and Greek and German at the commencement of their fourth year; and they carry these studies on to the end of their course, receiving at the same time regular instruction in English, in its highest aspects, from a highly qualified master, a graduate of the University of Edinburgh, with first-class honours in classics, and also during the whole of this course elementary lessons each year in some branch of science.

11,339. Do many of your students leave you for the University?—On an average, I should say, from twenty to twenty-five yearly.

11,340. From what class of your academy do they go to the University?—So far as I am able to find out, after examining all the statistics I possess, not more than one-half of these have gone through our whole course; the others are drawn from classes below our highest class, some from the fourth and some from the third; and these, I may say, in my opinion, go up to the University quite unprepared for the proper work of the University.

11,341. *Mr. Campbell.*—By your whole course, I presume, you mean up to the fifth class; you say that the sixth class has only been recently instituted?—We have only had the sixth class in operation for one year; and while I have no doubt that we shall always have it for the future, I am thinking at present of the fifth class as the highest.

11,342. *Dr. Muir.*—Is not that a very long school course to add to the University course?—The average age of boys in our highest class at the commencement of the session is under sixteen. The average age of the boys who leave the academy for the University cannot exceed sixteen. You must bear in mind, however, that the great majority—indeed almost all our pupils—belong to the higher families, who have begun their education early, and who carry it on systematically; for we have a curriculum, and they are not allowed to choose what branches they please. When a boy is brought to school we never ask his parents what classes they wish him to join; I fix what classes each pupil is able to join. There is a curriculum fee, and, except in cases of bad health, each pupil must take all that we lay down for him.

11,343. *The Chairman.*—Do you think that sixteen, which is the period when they leave your highest class, is early enough for them to go to the University?—I think so.

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11,344. You know that a number go to the University much younger?
—Yes.

11,345. In order to prevent these younger ones from going, would you have an entrance examination at the Universities?—Assuredly.

11,346. Up to what standard?—The work in the highest class of a good secondary school and in the junior classes of the University—I speak now of classics and mathematics—might, perhaps, to some extent overlap each other, but certainly a good average boy going from our highest class should feel that the work in the lowest class in the University was not below what he had been doing before, but was at least on a level with it, and, if possible, above it.

11,347. But, looking to the general position of education in the whole country, do you think it would be possible to institute an entrance examination so strict and of so high a standard as your highest boys could pass?—Assuredly I do.

11,348. I am not talking of the relation of such an academy as yours to the University; but do you think there are schools enough in the country to enable students generally to obtain that higher education to fit them for the University?—My experience on this point was gained in a different sphere, in the Elgin Academy, where I was classical master.

11,349. For how long?—For a good many years. We drew into that academy, from side schools and from many districts, young men of the very class to whom you are at present referring, and these were the very lads who maintained the character of the school, taking a higher place generally than those belonging to better families in the city; and they certainly raised themselves to whatever standard the University required.

11,350. But are the pecuniary means of the great mass of the boys of the classes who go to the Universities no drawback? Do they throw no obstacle in their way?—They of course require means to send them to the University. A young man must have a certain amount of money to enable him to stay a year at the University; but I hold, that from every point of view, that money would be far better spent in keeping him for that year at some place where he would be raising up his education to the required point, where he would receive not merely five or six months' training in one or two branches, but where he would receive—if his means would allow him to continue there—during a whole session training in all that is necessary to make a complete man of him. Besides, there are charitable societies, and there are bursaries given by Churches, which to a great extent meet that difficulty. I happen to know of a class conducted under the auspices of the United Presbyterian Church in Glasgow, which is attended by young men in business—men who never saw Latin before joining that class, but who from various reasons are desirous to receive a University education. Last year—I mean at the commencement of the session 1875—seven out of that class of fifteen, after fourteen months' training, went to the University, and passed successfully the examination to which Professor Ramsay submits all his students on entering his junior class, and one of them was a prizeman at the end of the year, out of hundreds of competitors.

11,351. That was in the junior Latin class?—Yes.

11,352. *Dr. Muir.*—Were these men all connected with the United Presbyterian Church?—I suppose so. I may also state, although I cannot give statistics so thoroughly in this case, that I myself examined a similar class conducted under the auspices of the Free Church, and I found, that out of a considerable number, which I cannot at present specify,

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seven in one year were prepared to go to college. I was present one evening when that result was told to these young men, and it was intimated to them that their fees in the junior Latin and junior Greek would be paid as a reward for what they had done during the previous twelve months. In both of these cases the young men belonged to the very class to whom I believe you now refer, and, in both cases, with a training extending little over one year, they attained to the standard which is at present required for entrance to the University.

11,353. *The Chairman*.—Do you suppose that these young men were the children of parents resident in Glasgow, or that they had come from the country to Glasgow for the purpose of attending these classes?—I believe they were of both classes. They were all in business, but wished to give up business in order to enter one or other of the churches.

11,354. Then they were young men of a certain age?—Yes, I should say above twenty.

11,355. *Dr. Muir*.—Have you heard of any similar organization on the part of the Established Church to carry on its students intending to enter its ministry?—I was consulted by a clergyman of the Established Church to recommend a person to conduct a class in the same way for that body. I was unable to recommend anyone to them at the time, and I do not know who was appointed, and therefore I have no statistics in their case, but I know the men who conduct the other two classes.

11,356. *The Chairman*.—These, of course, were young men who were too old to go back to school?—Yes. These young men received only three lessons a week in the evenings, and they continued still at business. In addition to these cases, I happen to know something of a system of bursaries inaugurated chiefly through a clergyman in this city, Mr. M'Phail. I have myself examined some of the pupils who have gone through that training. They receive all that the elementary school can give, and then compete for a bursary of a certain amount, to enable them to go to a good grammar school, and the result of two years' training on these young men has been marvellous.

11,357. Then you have no apprehension but what, if an entrance examination existed at the Universities, means would be found by all the young men who at present go to the University to procure the education that was necessary to enable them to pass that examination?—I believe that most certainly; and I also believe that these young men are the very men who would most certainly raise themselves up to it, if they were worthy of being encouraged to go to the University at all.

11,358. *Dr. Muir*.—And yet, I suppose, these men, although they may attain the object of their desire to become ministers, very rarely become scholars of eminence?—I should think that as great a proportion of them become scholars of eminence as of any other class. I have in my eye at this moment two young men, one of whom could not, without help from friends, have gone from his country district to the school, while the other could; one at this moment occupies a high position in the Church, and the other is a professor.

11,359. *The Chairman*.—Have you anything else to say upon the subject of entrance examinations?—The only thing that occurs to me is that, unless the examination is made something real with regard to the height of the standard, we would be better without one at all; and, secondly, that if our secondary schools were in a good condition, I should like to see all the examinations transferred from the Universities to the school, so that we would have something corresponding to the leaving examinations of the German *gymnasias*, and corresponding to what I found last summer taking place in the public schools in England. In

each of the schools which I visited the sixth form was undergoing an examination, conducted under the auspices of the Universities of Oxford and Cambridge; and those who are successful carry with them their certificate to entitle them to certain University privileges and to exempt them from certain University examinations. I should like to see something similar to that introduced in our own schools, as holding out a terminus to which all the boys, even those intended for a commercial life, might look forward.

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11,360. By whom would you have that examination conducted?—There might be a board in connection with all the Universities establishing the same standard for all the schools as well as for all the Universities. I would have no fear of such a thing happening here as happened in Germany in connection with this matter. The Universities there had the power, until 1832, of fixing the standard at which boys should be received into the University, but it was found that they were so lowering the standard that boys were leaving school at too early an age. Since 1832, that privilege has been taken from the University and transferred to a Government authority. I would have no fear of such a thing happening in Scotland, if there was a general board.

11,361. What class of men would you have to constitute that board?—Mainly professors, to regulate what the standard should be; they might carry it out through any means they chose to adopt.

11,362. Would you make it compulsory that boys should go through that examination at schools, or would you allow those who preferred it to go up and take the entrance examination at the Universities?—I have not thought on that point particularly; but I think it would be a good thing for the schools if it were made compulsory there.

11,363. Such a system as you contemplate would make it absolutely necessary for the boys who are going to the University, either to attend a secondary school or to get education by some of those specially provided means you have spoken to us about, such as the classes you have mentioned; they could not come direct from the primary schools, could they?—I don't see why they could not.

11,364. Are the primary schools in such a condition now that the requisite education can be given there?—Speaking of men advanced in years—and a great many of those who come to the University from the country are advanced in years—I believe they might in any parish in Scotland receive all the training that would be necessary in mathematics to prepare them for this preliminary examination; for, I believe, it is a fact that schoolmasters who have had no training but that of the normal seminaries in the branch of arithmetic, are at least equal to those trained in the Universities, and they have had also to pass pretty severe examinations in algebra and geometry. In these respects, therefore, they could, I believe, in any parish train a youth for entering that class; and if the man wishing to come to the University is of such an age that the loss of a year is of great importance to him—I am supposing, of course, that he has good abilities, and that he has read a good deal of general literature—I believe that such a man could enter some other class where there is no preliminary examination, as well as mathematics, and could be proceeding with his University course, preparing during that time profitably for his classical portion of study, and for the examination that would be required of him there.

11,365. But you don't mean that a man should attend logic and moral philosophy before he attended Latin and Greek?—In Glasgow, a large proportion of all the boys who go to the University go directly to logic.

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11,366. Do you think that is desirable?—I don't think it is desirable for boys at all events.

11,367. But looking merely to the comparative position of the two studies, do you consider it desirable, irrespective of the age of the students, that anybody should go to logic and moral philosophy before he has attended Latin and Greek and mathematics?—I don't think it the natural course. What I have proposed is merely to meet a difficulty in the case of those men who cannot, it is said, be prepared for the other part of the course when they come up to the University.

11,368. Could a man be said to be prepared to understand or appreciate a good course of logic or moral philosophy, if he was so comparatively ill educated that he could not enter a Latin or Greek class?—I would prefer that he should be prepared to enter a Latin or Greek class at first; but I repeat that I would simply propose this as an alternative rather than deprive a man of the benefits of a University education altogether.

11,369. What do you say of another alternative which has been suggested to us by many witnesses—namely, that looking to the great desirability, as you put it, of not depriving any man of a University education, the junior classes should remain open as at present, but that there should be an examination, say a pretty stringent examination, at the end of the first year or at the beginning of the second year, to which examination all students should be subjected, whether they have attended the first year's classes, or have come direct from the country or from other schools to the University?—I would object greatly to that, unless you are prepared to call the University a school.

11,370. That is to say, you would then call the junior classes of the University a school?—Yes. I may state, in connection with that, that last year we sent ten boys from our highest class to the University. Seven of these went in for the preliminary examination, success in which would entitle them to the three years' course. Six were successful, but we advised all the six to take the junior class, because I consider four years' training to be of very great value to boys of such an age as these were.

11,371. *Dr. Muir.*—With reference to that last answer, I suppose you consider it still more advantageous if the first year's standard had already been made higher than it is now?—I should.

11,372. *Mr. Campbell.*—These six pupils had, I think, to go back in going to the first year's class?—Certainly, they had not to go forward. The work, as I said, overlaps.

11,373. *Dr. Muir.*—The scheme which the chairman has referred to has been proposed, I believe, principally with a view to present exigencies, and in view of the fact that secondary education in so many parts of the country has not reached such a standard as to admit of the entrance examination being enforced. It is with the view of meeting that difficulty that I understand that scheme has been proposed as a temporary arrangement. Would you not approve of it in that way?—I think that such a scheme would contribute greatly to perpetuate the present low state of secondary education.

11,374. *The Chairman.*—I think it is only in mathematics that you have told us that facilities exist, by means either of secondary schools or by such special classes as you have mentioned, for obtaining the requisite education in the country: what do you say with regard to the other branches?—My knowledge of schools in the country is not sufficient to enable me to answer that question.

11,375. *Mr. Campbell.*—You are aware that at present the teachers of

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public elementary schools have little encouragement to teach Latin and Greek?—I believe so, and I would strongly advocate a higher scale of payments for these higher branches, which require so much longer time and so much greater care in order to reach excellence; and, further, I would strongly desire to see established as a part and parcel of all our education, that there were bursaries given, in some way that might be devised, to the most deserving scholars in these elementary schools, in order to enable them to go to the nearest secondary school.

11,376. Do you agree with the evidence that we heard lately that the ratepayers throughout the country would be willing that the rates should be raised for the purpose of providing such bursaries?—I believe they would be willing, but I cannot give a decided opinion upon such a point.

11,377. *Mr. Campbell.*—Are the bursaries not more needed for the teachers who prepare the pupils than for the pupils who get the instruction?—They are both needed.

11,378. *The Chairman.*—Coming to another subject, will you give us your views as to whether any change should take place in the present curriculum or study for graduation in Arts?—I should not wish to see any material change introduced. I should wish to see two sessions of classics continued, as at present, and all the other branches. It is possible that excellence in some branch of natural science might compensate for low attainments in mathematics or natural philosophy.

11,379. Do you mean, even with regard to a pass degree, you would suggest that as possible, not confining yourself to those taking degrees in honours?—Yes. I think it might be introduced for a pass degree.

11,380. After a certain foundation had been laid in classics, would you approve of a pretty extensive system of optional courses?—Not for the degree of M.A.

11,381. You probably think that eminence in subjects not included in the M.A. degree should rather be met by a science degree?—Yes.

11,382. What subjects do you think ought to be compulsory for a degree in Science?—I am not prepared to give an opinion upon that.

11,383. But I suppose you think that even a man going in for a science degree should have a certain training in language?—I do, most assuredly.

11,384. In Greek as well as Latin?—Not necessarily.

11,385. You would probably substitute a modern or two modern languages for Greek?—I would grant that.

11,386. But Latin you would make compulsory?—I would make Latin compulsory; and, in connection with that, I may state what to myself has been rather a singular experience. At the commencement of our fourth year we allow boys to omit Greek, and in some cases Latin and Greek, and to devote the time thus gained to a more extensive course of English, and to additional French and German. Speaking of English alone, these boys receive two hours' instruction each day from a highly qualified master. The classical boys receive three hours instruction a-week, and yet never once in my experience has a boy on the modern side carried the medal in the English department; it has always gone to the classical boys.

11,387. Do you attribute that to the pre-eminent advantage of a classical influence as a means of culture and training?—I do. I may state that I turned my attention very specially to that during an official visit to the English schools last summer. The only school that I visited where great latitude in study was allowed was the Manchester Grammar School—a school meant to meet a class of students very like our own. In that school there are 800 boys, 400 of whom never enter upon the study of Latin. The general result of the education of those who never enter

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Latin at all was described to me as most unsatisfactory, and such that it was in contemplation to render classics compulsory, although with the prospect of great financial loss to the school.

11,388. *Dr. Muir.*—But, in cases like that, is not the reason perhaps to be found in the boys who abandon classics being less clever than the others?—I might have drawn such a conclusion from the statistics of boys furnished by our own school; but here is one-half of a whole school who never had classics, and inability to learn which cannot therefore have kept them from classics, for they had never been tested.

11,389. *The Chairman.*—But still they might be boys who did not take classics, because they knew from their early training even in their childhood that they had not the same talents as the other boys?—I don't think that can be the case; that was never hinted at as a reason.

11,390. Do you think there is any room for a new degree in the University course?—I have not thought much on the subject, but it has occurred to me that there might be a degree for a somewhat more limited course than the present M.A., to meet the case of schoolmasters and other classes who, from various circumstances, cannot take the whole course for the M.A. degree.

11,391. Have you no apprehensions that the existence of such a degree would prevent men from going on to the higher degree, and make them remain satisfied because they had got a University distinction of some kind?—I would have some fears that that might be the result.

11,392. And therefore you are not decided in thinking that it would be desirable?—No.

11,393. Do you think that the same end might be served, so far as schoolmasters are concerned, by the granting of a University certificate?—I believe it would, practically.

11,394. *Dr. Muir.*—You contemplate by the word 'schoolmasters' the teachers in the primary schools, I suppose?—I hope by and by to see all primary teachers men who have had some University education.

11,395. But for teachers in secondary schools you would, no doubt, require a higher grade?—I would require the highest possible.

11,396. *The Chairman.*—Would you approve of the introduction of what is called extra-mural teaching in the Faculty of Arts?—I would not; instead of that I should wish to see the present teaching power greatly increased in certain classes.

11,397. What are your reasons for thinking that extra-mural teaching is not advisable?—There is something in the very atmosphere of the University that elevates a man, and being national, I can see no reason why the Universities should not meet all the wants of the nation.

11,398. Of course, when we speak of extra-mural teaching, we only mean that a student should take a portion of his course extra-murally, as you are aware is the case in the Faculty of Medicine?—I could not approve of that in the case of the Faculty of Arts.

11,399. Probably one of the objections that you see to it is that it would lead to a system of cram?—I should fear so.

11,400. But you say that the teaching power in the University should be increased; in what direction or how? by having more highly qualified assistants?—No, but by having a greater number of assistants. Public opinion has determined that in our very best schools no class shall exceed thirty or forty boys; now I cannot see how it is possible for the present staff at our University to do justice to some of the very large classes there. I do not consider the size of these classes to be anything exceptional, but I expect we shall have the same numbers in future years as at present.

11,401. Do you think that the professors, especially in the Latin and Greek classes, which are the largest, should have a greater number of assistants?—I do.

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11,402. And possibly assistants better remunerated than they at present are?—Yes.

11,403. Would you devolve a portion of the actual teaching on those assistants; I mean, would you allow the assistants' teaching to be only supplementary to the professors' teaching; or would you allow it to take the place of the professors' teaching?—The junior classes, I believe, attend the University two hours a-day. I should like to see the professor, if his time would admit of it, taking these students for one hour, and the assistant or assistants taking them for the other hour, and, in the case of some, for more than an hour, if necessary.

11,404. Do you think these very large classes should be subdivided under the assistants?—Yes.

11,405. Do you think a necessity for such additional teaching power exists in other classes than the Latin, Greek, and mathematics?—I have no opinion upon that matter.

THOMAS HARVEY, M.A., LL.D., examined.

11,406. *The Chairman.*—You are Rector of the Edinburgh Academy?
—I am.

11,407. And you have been so for how many years?—Nine years.

11,408. You were a Glasgow student originally?—Yes.

11,409. Did you take your M.A. degree at Glasgow?—No. I went as a Snell exhibitor to Balliol.

11,410. And you are a graduate and M.A. of Oxford?—Yes.

11,411. And an honorary Doctor of Laws of the University of Edinburgh?—Yes.

11,412. You have had considerable experience of Scotch Universities? You taught, I think, as a substitute, the Greek class in Glasgow for one year, and the Latin class in Edinburgh?—Yes; I taught part of two years in Glasgow and one whole session in Edinburgh.

11,413. Therefore you know the Scotch University system thoroughly?
—Yes.

11,414. We should be glad to be favoured with your views as to the propriety of introducing entrance examinations at the Universities?—I think there certainly should be some entrance examination,—I should be prepared to recommend a very moderate one,—for the admission of students to the University. I think the present condition of the schools would not justify any very serious difficulty being put in the way of boys and young men coming up from the country; but still I think there should be a *bonâ fide* entrance examination.

11,415. You know the condition of the schools well, I think. You have acted as an assistant education Commissioner?—Yes, both for the elementary schools and the burgh schools.

11,416. I am afraid you think that modern legislation has not improved the position of the primary schools in the way of their competency to give higher education?—I should not like to pronounce any very strong opinion on that subject. I think that a great deal of good has been done to the general education of the country; but I rather think, so far as my experience goes, that the teaching of classics and of mathematics has fallen off very seriously in the country schools.

11,417. And even that the class of masters who are appointed now

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are not men who are capable of teaching as they used to do?—No, I don't think they are.

11,418. Then it is that knowledge of the position of the primary schools which makes you think that an entrance examination, to be desirable, must be altogether of an elementary nature?—Yes, quite of an elementary nature. At least I have sketched what in my idea it should be; and you can judge for yourself whether that is elementary or not. I think the entrance examination should be confined to the three subjects of Latin, Greek, and mathematics. I may say, incidentally, that I have no doubt this would operate a little against schools such as that of which I have the honour to be rector, because we teach many more subjects than those to which I would confine the entrance examination. Our boys would be getting no benefit, as it were, of their teaching in German and French and English and history, and a number of subsidiary subjects; but still I think that all that should be aimed at in this entrance examination should be to secure an elementary knowledge of Latin, Greek, and mathematics.

11,419. But those who have gone any length in your school would be fit to pass, as the most of them do pass now, into the second year's course?—Yes. I was about to point out, however, what I think the entrance examination should be. I think the candidates should be called on to know one book of prose and one book of poetry in Latin,—a book of Cæsar, or Livy, or Sallust, or an equivalent in Cicero, and one book of Virgil, or Horace, or Ovid. With respect to Latin prose, I think the very most that could be exacted would be this, that an easy passage from Cæsar, translated into English as literally as the difference of idiom would allow, should be set before them, and that they should be required to retranslate it into Latin. I would make the exercise more easy still, by giving all, or nearly all, the Latin words.

11,420. What do you mean by the Latin words being given then?—The crude forms of the Latin words given them and in their order. This is a test that I have often applied in schools when I was visiting them, and which I have often applied in my own classes in the Academy; and I know that it is quite as much as you could possibly expect the candidates to be able to do; and, even then, you would need to be prepared for a good many extraordinary blunders. With respect to Latin verse, I would require the candidates to be able to scan the lines of the author that they took up,—that, if they took up Virgil, they should be able to detect for themselves any false quantity; and similarly, in Horace, though it would be more difficult, I should expect them to know the more common measures of the odes. Then, in mathematics, I would expect only arithmetic, and, at the very furthest, the elements of geometry. I would not expect more than the first book of Euclid. That would be my idea of a first or entrance examination. I should like also that the present examination should be maintained, by which boys are allowed to enter for a three years' course. That examination, however, should be considerably more difficult,—very much as it is at present; and I think that no student should be entitled to pass from the first into the second class of Latin, Greek, or mathematics without passing that examination. I have also thought over a third examination which I should like to see instituted for those who have been, we shall say, six or seven years, or any length of time, at schools studying Greek and Latin,—that examination being equal to an examination for a pass degree, by which they would be exempted altogether from attendance at the Latin or Greek or mathematical classes.

11,421. I suppose such boys as come from your seventh class could

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easily pass such an examination?—Yes; some of them could. At present not a few of them lose or waste their time in their first year at the University. They have already had seven years' grinding away at Latin and Greek, and arithmetic and mathematics, and they are prepared and eager to enter upon a course that may fit them for their future profession. There is an obvious objection, however, that may be made to that. It may be said: Why should this third examination that I speak of be confined to boys in Latin and Greek and mathematics? Why should I suggest an examination that would exempt them from attendance at these classes and allow them at once to proceed on their course in any way that they please? My answer to that is, that, in the first place, I am not sure that I would object to a boy, if he were fit for it, passing similarly in philosophy or science; but the reason why I confined it to Latin, Greek, and mathematics, is that these are the subjects that are taught in our schools. The schools, some of the higher schools at all events, are prepared to send up students fitted at once to enter upon a higher course than the junior classes of the University offer them; and, secondly, I think that any student who had qualified himself by private study to pass an examination for a pass degree in philosophy, or logic, or natural philosophy, or in higher physics, or chemistry, would be just of that nature that he would wish to go on and get still better and higher teaching in the Universities, and therefore that he would not be likely to pass by these classes, but, on the contrary, would be inclined to take a very high finishing course at the Universities. I hope I have made clear my threefold idea, as it were, of an entrance examination,—one for all students, a second for a rather more advanced class of students, and a third to exempt from attendance on certain classes altogether. This would really be a competition of the schools with the Universities.

11,422. But looking to the class of students that come to the Universities, and taking into consideration your knowledge of the state of the primary schools, do you think that there exists in the country the means of giving that amount of education which would enable a boy to pass even that very moderate entrance examination which you speak of?—I think that, moderate examination as it is, it would come upon them like a shock at first, and that a large number of boys would fail in that examination.

11,423. What do you say to the idea which has been suggested by some witnesses, that, in the meantime at least, until the primary or secondary schools in the country are in a better position, the junior classes in the University should remain open, as at present, but that there should be, what you have also recommended, a compulsory examination at the end of the first year, to which all shall be subjected, both those who have gone through the junior classes at the University, and those who have come from the country from school?—I think that would be a very great improvement on the present system; but an entrance examination for all is better still, and would in a few years have a very important effect upon the teaching throughout the country. I have no doubt that if sufficient force were brought to bear by school boards upon their masters, they could very soon get a class in each parish school or in each country school that would be prepared to pass the entrance examination which I propose. At first I think it would cause the rejection of perhaps from 30 to 40 or 50 per cent.

11,424. But to enable the School Boards to do that, supposing they were willing, would it not involve the necessity of paying the masters higher than they are paid at present?—No. I think not. The increase in the masters' pay has been very great since the School Boards were instituted; and they are now paid in such a way as to entitle the School

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Boards to expect that they should be able to train boys in the manner I speak of.

11,425. But are the men themselves educated in such a way as to enable them to do so?—At present they are not. They don't come from the normal schools quite fitted for the work that I suggest. I should say that at the present moment there is a very decided difficulty about this question of entrance examinations, but it is rather looking forward to what its effect would be in a year or two, that I advocate the examination I have suggested.

11,426. Would the plan that I have told you has been suggested to us by some witnesses do in the present transition state, or do you think it would stereotype the present condition of matters and perpetuate it?—I should be afraid that it would perpetuate it; and you would have what you have now in Glasgow, you would have in the junior class of mathematics and Greek boys who are not taught by the professors at all, but simply by their assistants. I fancy that I am speaking the truth when I say that the mathematical professor does not see the students in his junior class, except on two occasions,—to receive their fees and to bid them good-bye. I think you, sir, have yourself stated the real objection to entrance without examination,—that is, that it would perpetuate the present system, and that we should really have no hope for the future. Now, I don't care although you make the examination even a more moderate one than I have suggested, but I should like to see an examination of some kind.

11,427. You did not include English literature, but I suppose you meant to include it as a department of classics?—All that I would expect of the student there would be that he should be able to write to dictation correctly, and to parse and to analyze.

11,428. You spoke of the evils which occur just now from the number of young men, mere boys, who are in these junior classes, and who necessarily are taught by assistants, both from the size of the class and from the youth of the boys; but is there not another class of University students for whom some provision should be made—namely, those who late in life desire to come to the University and who are too old to be sent back to school?—Yes.

11,429. What would you do with them?—I would have a broad margin of exceptions. With respect to persons above a certain age I scarcely would insist upon an entrance examination.

11,430. You would let such a person enter without an entrance examination in the hope that his more mature mind would enable him to catch up the other students during the course of the session?—Yes; and because the mere fact of his coming there showed such a desire on his part for study that I would not have the heart to stop him from gratifying it.

11,431. At what age would you say that the entrance examination should not be compulsory?—I would say that any student coming above the age of twenty should not be called on to pass an entrance examination.

11,432. Would you put it even as old as that? Suppose a boy of nineteen came up, you could not send him back to school?—We have boys in our school at eighteen; I don't see why they should not, up till eighteen, at all events, be called upon to pass that examination.

11,433. *Mr. Campbell.*—Is there any other school in Scotland where the boys are so old as at yours?—I should think that at the Fettes College they are much older; but that, of course, is a boarding-school.

11,434. In your sketch of an entrance examination you said nothing about Greek? I suppose that was an omission?—Yes; I should have

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mentioned that. All the Greek that I would call upon candidates for would be a knowledge of the grammar and the first book of Xenophon; three or four chapters. That is the furthest I would expect them to go. It is a very paltry examination, but it is quite as much as they could do. One reason why I think there should be an examination is that I don't think the students are likely to get their grounding in Greek very thoroughly in the University—the classes are too large.

11,435. *The Duke of Buccleuch*.—They have been pushing them on too fast?—Yes. If they don't get their grounding in a school, they won't get it in a University.

11,436. *The Chairman*.—Suppose this entrance examination instituted, would you think it desirable that it should take place at the University, or, as has been suggested by some of the witnesses, at the schools, or in local centres to which the pupils could be sent, or both?—I think that whatever was found to be the most convenient would be the best. I think the schools would be not at all a bad place for them. Each school would be anxious that its members should be able to pass that examination; and in order to promote a wholesome competition among schools, I would have the numbers that each school sent up to the University, and the lists of the successful candidates published. I would not publish the names of those who failed to pass, but I would give the numbers who went up from each school, including those who failed as well as those who passed.

11,437. Whom would you have to conduct the examination?—Entirely independent examiners, neither schoolmasters nor professors.

11,438. You mean men like the non-professorial examiners appointed by the University Court?—Yes; they would do remarkably well.

11,439. *Dr. Muir*.—Do you think one examining board would do for the whole lot of the four Universities?—I would prefer that, because it would introduce an unpleasant competition and scramble if you had different examiners and different theories as to what should be done.

11,440. *The Duke of Buccleuch*.—Would you have these examinations entirely *viva voce*, or partly written and partly *viva voce*?—I think that, just as in Oxford, you should have a combination of the two.

11,441. *The Chairman*.—Assuming a student to have passed this examination you speak of, have you considered whether any changes should be made in the present curriculum for the Arts degree?—I should open up a great variety of schools, just as Oxford has shown us the example. I should insist upon the passing in classics and in mathematics as a preliminary for all the schools; but I should allow students from that time forth to go on to a great variety of schools.

11,442. That is for the Arts degree?—Yes, for the Arts degree.

11,443. Do you think it is desirable to have a separate degree in Science?—Certainly.

11,444. Would you require them to pass the same foundation for the Science degree,—in other words, would you require Greek as a part of the foundation for the Science degree, or would you think it possible to substitute for it one or two modern languages?—I think it would be quite possible to do that, and I think it would be very desirable.

11,445. Do you think one modern language would do?—I think so.

11,446. What is your opinion as to the propriety of introducing extra-mural teaching to any extent in the Faculty of Arts?—I think that it could not fail to do good. You will see from what I have already said that practically, if my views were carried out, there would really be a great deal of extra-mural teaching, because all the schoolmasters would be extra-mural teachers, to some extent, if my idea of a third examination

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were carried out, and would have their boys exempted from entering certain classes at all; and in so far there would be open competition with the professors in Greek, Latin, and mathematics; but I think that besides that there should be proper extra-mural teaching. It is quite possible to conceive the case of a professor who is either lazy or from some other cause is inefficient, but whom at the same time it may be undesirable or even impossible to get rid of; and I think that in order to keep men up to their duty it is as well that there should be a certain amount of competition; but my main idea of extra-mural teaching would be to allow a number of persons of eminence,—men who were distinguished in philosophy, ancient history, any particular author or part of literature, or persons who would introduce new thought in philosophy,—to be recognised as extra-mural teachers. I think it is most important that there should be extra-mural teachers of that high class, so that persons wishing to go on for honours in any particular subject, or who had a great taste for any particular branch of study, might have an opportunity of getting themselves perfected in it.

11,447. But these would rather be additional intra-mural teachers than extra-mural, would they not?—Extra-mural or intra-mural, they would at all events be teachers apart from the professors.

11,448. That is to say, they would be lecturers authorized by the University Court?—Yes.

11,449. They would be men teaching in supplement or aid of the professors, and not in opposition to them?—Those higher class ones would not be in opposition to the professors; but if there were teachers appointed really to compete with the professors,—and I think there should be one or two in each department,—extra or intra-mural teachers, whatever you please to call them, appointed for a couple of years or so, but whose appointment could be cancelled by the Court at any time, I think that would help greatly to keep the professors up to the mark even in their ordinary work.

11,450. Do you not anticipate that the effect of that would be, certainly on the part of the extra-mural teachers, and ultimately, in self-defence, on the part of the professors, to a system of cram?—No; I don't think so.

11,451. Do you not think that those men who were competing with one another would have in view, not who would give a young man the most general culture, but who would make him pass most quickly his examination for his degree?—I am looking at things very much as they are; and when I see such enormous classes as 200 or 300, I feel the absolute necessity of having some subdivision. No doubt this subdivision might be attained by assistants appointed by and under the charge of the professors, but it does not seem to me that that system is so satisfactory as the appointment of men independent of the professor. I think these monstrous classes require subdivision, for if school-masters cannot teach more than 40 in a class with anything like good results, how can a professor teach 300?

11,452. Then, of course, you would only allow a certain portion of the course, just as in the medical course, to be taken extra-murally?—Certainly. I think that the way in which the medical matters are managed give a very good guide there; but I was going to say further, with respect to extra-mural teaching, that it is most important to have some teaching besides that of the professors when you come to logic and moral philosophy, because we all know very well that, although there may be only one school of mathematics, there are a great many schools of philosophy, and if you have a man teaching simply the Aristotelian

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philosophy, or the Platonic philosophy, your University is not many-sided enough. I think that there especially it is of importance that you should have men of eminence to teach different sides and different systems of philosophy.

11,458. With your knowledge of Scotland and of the Universities, do you think that such men would be found?—I think they would be found. I think there are men who, for the love of the thing and from their knowledge of the thing, would be found.

11,454. Without endowments?—Yes, without endowments. I have in my eye men, at least one man who would be an admirable addition to University philosophical teaching.

11,455. *Dr. Muir.*—Would you apply that also to the Theological Faculty?—That is a subject that I decline to enter upon.

11,456. *The Chairman.*—I suppose you have reason to complain or to regret, as masters of other high-class schools like the Edinburgh Academy have done, that a great number, or at least a considerable number of the pupils of the Academy leave it too soon to go to the University?—Yes; but I am not prepared to urge that very much. The chief fault that we have to find with the present system in the University is that our students are exposed to a real *bond fide* examination for the three years' course, and that the University's own students are not exposed to that. That is our chief grievance; I really don't think that the schools have any grievance beyond that.

11,457. Do you find an evil and a thing to be repented of in the case of the boys themselves that they leave the schools too soon?—I do; and I know they do so because they are afraid that although they stayed with us another year, they might not be able to pass the *bond fide* examination for the three years' course, while by leaving a year before they get entered into the junior or first class, and are swept on to the further classes without any examination at all.

11,458. That is the result of not having a compulsory examination at the end of the first year's course for University students as well as for school students?—Yes.

11,459. *Mr. Campbell.*—Then you think that making the examination compulsory at the end of the first year for all students would induce pupils to remain longer at the secondary schools?—Certainly. I have a great deal of information here, but I don't know that it would be valuable to the Commissioners, about the numbers who leave our classes at different times.

11,460. *The Chairman.*—But you have boys who go away leaving the fourth class, and so on?—Yes.

11,461. That is partly due, I suppose, to the lenient discipline of the University, and partly to the hurry of life?—Yes, and in the classes above the fourth to the cause that I have now mentioned.

11,462. *Mr. Campbell.*—But do you tell us that those boys who leave you then go to the University?—I have looked into the matter carefully, taking a number of years, and I find that in the end of our fourth year, very few, almost no boys, go to the University. Since I have been at the Edinburgh Academy, I have known of only four cases of boys leaving at the end of the fourth class to go to the University. At the end of that year about 20 per cent. leave a class of fifty, of whom few or none go to college. Twenty-five per cent. leave a class of forty at the end of the fifth year, of whom nearly one-half go to college; nearly 50 per cent. leave a class of thirty at the end of the sixth year, of whom quite one-half go to college; and at the end of the seventh year, from 60 to 70 per cent. go to college.

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11,463. *The Chairman.*—Then those who leave at the end of the fourth year, and do not go to college, go to mercantile pursuits?—Yes, or to classes about the town preparing for merchants' offices.

11,464. But they give up the higher or classical department?—Yes.

11,465. *Dr. Muir.*—About what age are they?—A boy leaving at the seventh year would be seventeen. He would be fourteen at the end of the fourth year.

11,466. *The Chairman.*—What is about the present number of pupils at the Academy?—It is smaller than it has been for some years. We have at present only about 280. The falling off, however, is altogether in the junior classes. The higher classes are quite as large in numbers as they ever were in my experience, showing that there is no falling off, at all events, in the desire for a good high-class education.

Professor MACLEOD, Glasgow, examined.

Professor
Macleod,
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11,467. *The Chairman.*—We understand you are desirous of supplementing the evidence you gave us on a former occasion, chiefly on the subject of clinical teaching in the University of Glasgow?—Yes, entirely with regard to that. The reason why I wish to supplement my former evidence, in which I did not touch upon the question of clinical teaching at all, is because there has been some little difficulty in carrying it on lately in Glasgow; and as we had some reason to think that the question might be taken up by the Commission, it was necessary to make it quite clear to the Commission how the clinical teaching had been conducted heretofore, and how the recent changes had been introduced into it in Glasgow. It is necessary, for the proper comprehension of the subject, that I should explain that up to 1874 only one hospital existed in Glasgow, the Royal Infirmary, and all the clinical teaching was conducted there. We had then two schools of medicine in Glasgow; we have now three; but at that time all the students of the two schools went to the Royal Infirmary for their clinical instruction. Previous to 1860, all the medical officers who filled the posts of physicians and surgeons to the Royal Infirmary were general practitioners. At that time the election of these officers was only for a short period, and the consequence was that the clinical instruction was not by any means complete.

11,468. The election was then by the managers of the Royal Infirmary?—Yes; and as the teachers were in the hospital for so very short a period, it was impossible for them to gain that knowledge and that art of teaching which requires many years' experience to attain.

11,469. *Dr. Muir.*—They taught the University students?—They taught the whole of the students, both University and Andersonian; there was no other hospital to which they could go; but, so far as my information extends, about 1860 the period of service in the Royal Infirmary was prolonged, and thus, as the teachers were able to pay more attention to that department, clinical instruction came really to occupy its proper position in the curriculum. I think I am right in saying that it was the Commission of 1858 that made clinical examinations an essential part in the examination for graduation. About that time then the period of service in the Royal Infirmary was prolonged, and the necessity arose for the clinical teaching being conducted with more care from its connection with graduation. Those who had the conducting of it for the University were then no longer general practitioners, but consultants—they were consulting physicians or consulting surgeons, giving their whole time to teaching and to consulting practice. In short, what I

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mean to bring out is, that about the time I allude to a vast deal more care was taken in teaching clinically than had ever been taken before. In fact, the means had not existed before in Glasgow for conducting this kind of instruction properly. Mr. Lister was Professor of Surgery in Glasgow at the time I speak of; Professor Gairdner was Professor of the Practice of Medicine at that time; they were both consultants, and devoted a great deal of time to this clinical instruction. I succeeded to Mr. Lister in 1869, and I have followed the same system. I have never since then been anything but a consultant, and I have devoted my time to a large extent in the same way to this clinical instruction,—that is to say, I devote two or two and a half hours of the first and best work every morning to this particular department. I wish by this to show that the Professor of Surgery and the Professor of Medicine have been devoting a great deal of time to this kind of work for some years. Before 1874, which is a distinct break in the history of our school in Glasgow,—that being the year in which the Western Infirmary was established,—Dr. Gairdner and myself, as the Professor of Medicine and the Professor of Surgery, were the only representatives of the University in the hospital (Royal Infirmary). We were the only professors who had beds in the hospital, and we had beds there not in virtue of our being professors, but from the mere accident that we had been elected, or at least that we had got elected as physician and surgeon of that hospital. There was no direct connection between the Royal Infirmary and the University. A man might be a professor in the University, and not have beds in the Infirmary; and, as was the case then, and is yet, teachers have beds in the hospital who have no connection with the University. That was the condition of things before 1874, when, as I have said, there was only one hospital in Glasgow. At that time,—and this is a point that I must mention,—the clinical examinations for graduation were conducted solely by Dr. Gairdner and myself, with the aid of the assessors. No other professor connected with the University took anything to do with the clinical examinations for graduation; and that continued for years without any remuneration being paid to us for that work. The whole of these examinations for graduation were supposed to be part of our duty as Professors of Medicine and Surgery; and we got no extra remuneration for it whatever. Then, that brings me to a point to which all this is a sort of introduction. In 1874 a new hospital, the Western Infirmary, was established in Glasgow, both to meet the requirements of the University, which had been removed to the West End, and also for the purpose of increasing the accommodation for the sick poor of the city. The city is going very fast west, and, the Royal Infirmary being to the east of the town, it was thought necessary to enlarge the accommodation in the other direction. I may further explain that the only connection between the University and this Western Infirmary was, that a certain sum of money, £30,000, was paid out of the University funds to assist in the building of the Infirmary.

11,470. *Mr. Campbell.*—That was paid out of the funds subscribed for the new University buildings and hospital?—Yes. There was £30,000 given out of the funds collected for buildings to assist in the building of the Infirmary, and in return for that all the stipulation that was made was that provision should be made in the hospital for carrying on the clinical teaching. The Western Infirmary has no other connection with the University. The University authorities have no power to appoint any medical officer to the Western Infirmary. They may recommend a candidate; they may say, 'We would wish such a man appointed;' but they have no power to appoint him. It is the directors of the Western

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Infirmary alone who have got that power, and if the directors of the Western Infirmary were to refuse to appoint any particular professor connected with the University to wards in that hospital, they have a perfect power to do so. The two institutions are practically independent, with the exception of this fact, that the Western Infirmary must provide a certain number of beds for clinical purposes. Then, at the time about which I am now speaking, the Senate of the University agreed to recognise the teaching of every man in any of the hospitals of Glasgow who had charge of a certain number of beds.

11,471. *The Chairman.*—By the Senate you mean the University Court? —The Senate and then the University Court. There is a minute of the University Court which states that the tickets of any surgeon or any physician having a certain number of beds in either hospital (not merely in the Western, but in the old Royal Infirmary) were to be received for graduation upon an exactly equal footing with those signed by the professors; in short, that the professor has no special position whatever as a clinical teacher. His position as such arises simply from the accident of his having beds in a hospital; and if he has beds in a hospital, he is on a par with any other medical officer similarly placed—the fact of his being a professor being no advantage to him at all. That is the only connection that exists at this moment between the University and these hospitals. Then in 1874, when this Western Infirmary was about to be occupied, the Senate, by a minute, gave instructions to Dr. Gairdner and myself, the Professors of Medicine and Surgery, to leave the Royal Infirmary and to take charge of beds in the Western Infirmary. We were, at the commencement of the arrangements regarding the Western Infirmary, the only two medical officers to whom it was understood beds were to be assigned, I shall not say as matter of right (for the right did not exist), but who, it was understood, would be provided with beds in this new hospital, because we were at the time in charge of the teaching for the University, and we were desired by the Senate to transfer our services from the Royal Infirmary to the Western Hospital. But as we two were not enough for conducting the business of this Western Infirmary,—it was an hospital of two hundred beds, and with all the College medical students to look after, it was recognised on all sides that two medical officers were not sufficient to do the work,—the question then arose, Who else are to be medical officers of this Western Hospital besides you two, i.e. besides the Professor of Medicine and the Professor of Surgery? At that juncture Dr. Buchanan, the present Professor of Clinical Surgery, who was then a teacher in the Andersonian and surgeon to the Royal Infirmary, came forward and proposed that, if he were appointed one of the surgeons of this Western Hospital, and if to him was accorded the title of Professor of Clinical Surgery, his brother was willing to give the money to found a chair in the school; and consequently, after some little negotiation, which it is necessary to understand because the whole thing turns upon that, this arrangement was entered upon. In those early negotiations with regard to the establishment of a Clinical chair in the Western Infirmary, Dr. Buchanan alone appeared; it was at a subsequent date altogether that the chair of Clinical Medicine came to the fore. Dr. Buchanan came to me, as representing the surgical department of the University, or rather he was sent to me by two of my colleagues to whom he first spoke on the subject, to see what I thought about it. He told me he was desirous of having the arrangement referred to carried through, and asked my consent to it. I told him that, of course, I could only look at it officially as Professor of Surgery in the University, and that while I personally might desire in every way to further his

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views, it was necessary for me to see that any arrangement which was made in that direction would not trench upon the duties of the chair which I filled, the chair of Surgery; and I asked him if he would put down on paper exactly what it was that he proposed. That he did in a letter which I have here; and he also did so more in detail in a letter to Principal Caird, of which the letter to me was, I understood, partly a copy. The substance of his proposal was this:—That as the teaching in the Western Infirmary would be so large an affair, and as there would be so many students to look after, he desired to share it with me; that he was prepared to come to the Western Infirmary as surgeon on the footing of receiving 'an equal amount of the wards, the work, and the fees,'—half, as it were, of the work, the wards, and the fees; and that, if that were accorded to him, his brother would advance the money necessary to found the chair, and that he (Dr. Buchanan) would take charge of half the work of the clinical department. I was very willing that should be carried out. I stated in my reply to his letter that if measures were taken to prevent any weakening of my relationship to the clinical teaching,—if the affair were so arranged that the Professor of Systematic Surgery should continue to have a full share of the practical work—an arrangement which I considered necessary for the proper working of my own chair,—I should be exceedingly glad that the plans for this new chair should be carried out, and I should not only put no obstacle in the way, but I would do everything I possibly could to promote it. But, be it observed, the essential point was that, in the founding of this clinical chair, nothing should be done which could in any way weaken the relationship of the Professor of Systematic Surgery to the clinical teaching, or prevent him from having the same opportunities for teaching practically which I had possessed.

11,472. But when he stipulated for his due share of the fees, you had, as I understood, no fees for teaching clinically or for examining?—We had fees for teaching, but not for examining. Each student at present pays ten guineas for his instruction. One-half of that is paid to the lecturers in certain proportions, and the other half is taken by the hospital authorities.

11,473. But the directors of the Infirmary, as I understand, determine the proportions?—Yes; that is done entirely by them.

11,474. In short, those fees you receive not as a professor, but as a lecturer in the Hospital?—Yes. Then this negotiation to which I have referred took place very close to the beginning of the session of 1874,—close to the time when the classes were to begin for that winter session. There was too little time to complete the arrangements, and the Principal appealed to the Professor of Medicine and myself to let these chairs be established without the details connected with them being fully cleared up or fixed, and suggested that, if we did not throw any obstacle in the way in the meantime (as it was so desirable to have the new arrangements under weigh before the beginning of the winter session), the details might be left to the Senate to complete afterwards. Well, that was a most unfortunate idea; and it is that, I believe, which has led to a great deal of the confusion since, because these details were of very great importance to the carrying out of the whole scheme, but they were left over in this undefined way to be arranged afterwards. I may mention that the rapidity with which these arrangements had to be made was so great, that the lawyer who was in charge of them had actually to use the telegraph to catch me at the railway station, and I had to sign the necessary documents in the stationmaster's room in order to have the document for the beginning of the session. Well, we,—that is, the Professor of Medicine and myself,—

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somewhat thoughtlessly, I think, signed these documents without having taken the time that was necessary to see precisely what they contained; but we were told, and we still believe, that in the deed appointing the Professor of Clinical Surgery—and the same remarks are exactly true with regard to clinical medicine—ample measures had been taken to carry out the intention I have spoken of, viz. that the Professors of Medicine and Surgery should be protected in all their privileges,—that in the department of clinical or practical work, in so far as they could overtake it, they were not to be interfered with at all by these new teachers, and that these new chairs were not in any way to interfere with what service the Professors of Medicine and Surgery had hitherto performed for the University, except in that half of the duty was to be taken by the new professors, so as partly to relieve them from the work. Then, at that time, or close to that time, Dr. Anderson, who had taken nothing to do with the earlier negotiations, proposed, or his friends proposed, to do the same thing for him that Dr. Buchanan's friends carried out for him—namely, to found a chair of Clinical Medicine on the same terms as were made with Dr. Buchanan upon the surgical side; so that from that time forward the chair of Clinical Surgery and the chair of Clinical Medicine sailed in the same boat; the same arrangements were made for both.

11,475. *Dr. Muir.*—But it also was instituted in a hurried way, and at such a time as to require the arrangements for it to be made hurriedly?—Yes. In both cases there was no time given; but we were pressed to sign the documents, otherwise the session could not be opened in time.

11,476. *Mr. Campbell.*—Were these two gentlemen already respectively surgeon and physician in the Western Infirmary and teaching clinically there?—The Western Infirmary was not opened at that time. This took place before the opening of the Infirmary. When I speak of the beginning of the session, I mean the session in the Western Infirmary in 1874, when it was about to be opened.

11,477. But they had been appointed to offices there, had they not?—Not till after the negotiations I speak of were closed.

11,478. *Dr. Muir.*—Then you and Dr. Gairdner had never practised as clinical surgeon and clinical physician in the Western Infirmary?—No; the Western Infirmary was not then opened at all. This was all preliminary to the opening of the Infirmary in 1874.

11,479. But you insisted on the rights which you had previously possessed with regard to the other infirmary being continued with regard to this new one?—Precisely, because the Senate had asked us to come and take the charge of this clinical teaching. They had ordered us, by a minute, to give up the old infirmary and come to the new one to undertake this work. Now, I need hardly say that, if the Professor of the Practice of Medicine and myself had been actuated by any selfish motives, we would not have consented to the establishment of these chairs, but we agreed to them entirely because we thought it was for the good of the school, when so much clinical teaching had to be done, and also because we believed that in the deed of appointment there were such conditions as prevented us from being thrown aside, and still kept us, so far as the practical teaching was concerned, in the same position that we had hitherto held. As I mentioned a few minutes ago, the details were left to be arranged by the Senate. The Senate accordingly tried to arrange the details, and a committee was appointed for the purpose; but it was found impossible for that committee to fulfil their functions, and it has been discharged. The reason why the committee found it impossible to arrange the details was that the two new professors had, in the course of the discussions, made four demands, which we, the

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Professors of Medicine and Surgery, thought were so completely at variance with the terms of their appointment that we were forced to oppose them, and therefore we could not agree to submit such questions to any committee. First of all, they had represented to the Medical Faculty of the University that their clinical teaching should be alone recognised. Notwithstanding the fundamental condition of their appointment, to which I have referred, they asked that Dr. Gairdner's teaching and mine should not count at all for graduation, and that none of the other teachers in the school should count either, but that the tickets of the new professors only should be accepted for graduation. The next thing they demanded was, that the clinical professors should examine exclusively for graduation in clinical subjects.

11,480. *The Chairman*.—Do you mean them alone or with assessors?—I mean with assessors, but them alone as regards the teachers. I have already said that Dr. Gairdner and I had up to that time conducted the clinical examinations.

11,481. With assessors?—Yes, with assessors; but they, having now got formal possession of these two chairs, demanded that this privilege should be withdrawn from us, and be given to them alone, with assessors. That was the second point. The third point was, that they alone were to have the power of giving clinical rewards,—that University medals, or certificates, or anything of that kind, were to be given only to men attending their teaching.

11,482. Who were to be the donors of these rewards?—The University. Lastly, they proposed that they should get the major part of the fees. Now, as I said a few minutes ago, the equal division of wards, work, and fees was what we had been going on from the starting of the negotiations, and these demands took Dr. Gairdner and myself perfectly aback, because it struck us that they were going precisely counter to the whole grounds upon which we had consented to the establishment of these chairs. What we say is, that if these proposals had been brought up *before* the chairs were established, we would have opposed the founding of the chairs until these things had been rectified, but they were never mooted until *after* the chairs had been established, and after we had got, as we believed, guarantees that no such demands were to be made. Now, there are just other two things that I should like to mention. The first is, that I wish it to be clearly observed that at the present moment the teaching in the Hospital is in a sense independent of the University,—that I teach in the Hospital not because I am Professor of Surgery in the University, but because I am surgeon to the Western Infirmary, and that whatever regulations the University may make, the directors of the Western Infirmary may say they won't recognise them inside of their walls. That, I think, is a most unfortunate thing. If the University were to say to-morrow that the tickets only of the clinical professors were to be received for graduation, the directors of the Western Infirmary might say they would permit no such distinction inside their walls; and the University would have no power to impose such regulations upon the Western Infirmary. The University might represent it to them as being a desirable thing to carry out, but they have no power to make them do it; on the contrary, the directors of the Western Infirmary are, I believe, thoroughly determined to prevent any such influence from the University being exercised within their walls.

11,483. *Mr. Campbell*.—There are other clinical teachers than the professors, are there not?—Yes. At the present moment there are teachers of clinical medicine and clinical surgery in the Western Infirmary who have no connection with the University at all.

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11,484. *The Chairman.*—Is their teaching recognised by the University?—Yes, at present it is recognised the same as the others. There is an extra-mural physician and a surgeon in the meantime, and we expect that there will be another physician and surgeon shortly, if the hospital is enlarged.

11,485. And they share the fees along with you and the two clinical professors?—The fees at present are paid to the teacher to whom the student chooses to go.

11,486. I thought you said they were paid to the Infirmary?—Yes, in the first instance; but the Infirmary pay each of us according to the number of students who join our class. A student can join any teacher that he pleases, and then at the end of the session the Infirmary officials sum up the number of students who have joined each class, and they pay over the proportion of the sum derived from the students. That is the way in which the thing is at present done. The clinical teaching in Glasgow at present may, therefore, be said to be perfectly open and free; and what the Professor of Medicine and the Professor of Surgery desire is, that it should remain so. We find that this system has done a great deal of late years to bring our school to the front, and that it is a most important aid to the University in every way. It gives the student the power to select the teacher that he thinks is best fitted to communicate information to him, and we desire that that arrangement should continue. It is the plan which exists in all the schools at the present moment except in Edinburgh. There is a peculiarity about the Clinical chair there; but in the London hospitals and in the Continental hospitals, there is no one man to whom the teaching of clinical surgery or medicine is delegated exclusively. There are several men in each school who have an equal right to teach clinically. In the great schools in London, the Professor of Systematic Surgery is also Professor of Clinical Surgery; but there are besides him other professors of clinical surgery who are exactly on a par with him in teaching. Now, what Dr. Gairdner and myself particularly desire is, that this open system, which we consider has worked well, shall continue in Glasgow, and that every teacher shall be put upon an equal footing, so that the students shall be free to choose him from whom they think they will derive the greatest amount of good. Besides that, we are particularly desirous that the relationship between the systematic teaching and the practical teaching should not be weakened,—that is to say, that no obstacle should be put in our way to give practical teaching as we do now. I don't wish to have any advantage over others, but I don't wish to be placed at any disadvantage. We don't wish to be put, as I believe our colleagues the Professor of Clinical Surgery and the Professor of Clinical Medicine desire, in a subsidiary position to them in the Western Infirmary. We wish, in short, to be judged on our own merits. I wish to teach clinical surgery, and, if the students think that I can teach them better than another, they should have the opportunity of coming to me.

11,487. Then, what you want is, that the Senatus or the University Court, whichever is the authority in the matter, should not comply with what you have reason to suppose is the demand of the clinical professors, that their teaching alone should be recognised?—Precisely; and that is my object in coming here to-day.

11,488. Does that rest entirely in the power of the University authorities, or can the directors of the Infirmary not checkmate you?—I should think they could.

11,489. *Dr. Muir.*—You said that the certificates of those clinical professors are taken by the University?—Yes; the certificates of all

clinical teachers are taken at present; but the move is, that they shall not be taken any longer on an equal footing, and that is what I am arguing against.

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11,490. You said that at present the fees are divided according to the proportion of students that each clinical teacher has. Now, supposing the greater number of the students choose to go to the other two gentlemen, if that rule is maintained, how could you and Dr. Gairdner get the same amount of fees?—For the first two sessions after 1874, the classes were divided into two equal parts, and the fees were divided into two equal parts. Dr. Buchanan took the half of the students in clinical surgery for the first three months of the session, and I took the other half, and then for the other half of the session we exchanged classes, and we divided the fees; but, last year, from some influence which I did not take the trouble to find out, that plan was given up, and it was said, 'We will make it a perfectly open question, and the students can go to any man they please, and you will be paid according to the number that go to you.' Well, I shall be delighted if that plan be continued as hitherto. I have had the largest number; but I would rather go back, because it appears to me just, to the original understanding, which was, that the work and the fees should be equally divided,—that is to say, that we were equally to do the work, and get paid accordingly.

11,491. But that is a matter that rests not with the University authorities, but with the directors of the Infirmary?—That is a matter that lies with the directors of the Western Infirmary. I may just say, in conclusion, that, as Professor of Surgery, I conceive it to be my duty to teach it practically as well as systematically, if I have the means. Surgery is both an art and a science; and if I have got the means to teach it practically, I consider it as much part of my duty to do so as to teach the more systematic part of it at the University; but if the arrangement which I believe it is the wish of my colleague to establish is acceded to, it will deprive me to a considerable extent of the means of practically illustrating what I am teaching systematically at the University.

11,492. *The Chairman.*—Then you mean that, if it is only attendance upon these clinical professors that is to entitle a man to his graduation, the students will not come to you?—They dare not come to me: it would be lost time—it would be of no use to them as bearing on the curriculum.

11,493. And therefore you will have no need to teach clinically?—Precisely. They could not come to me, because they would have no time for that. Their whole time would be taken up in getting their tickets for graduation. Now, the fact is that the Hospital wards are just as necessary for me in teaching surgery as the laboratory is to a chemist or as the dissecting room is to an anatomist. I cannot possibly teach surgery from dried specimens and from bones; I must have the living subject to teach from; and every day this practical part of the subject is becoming more and more important. Indeed, the whole tendency of teaching at the present day is to let the systematic part take a secondary place, and to bring the practical part to the front; and therefore it is that I am so exceedingly anxious in defending the rights and duties of my chair, and to see that no means shall be taken from me for carrying out this practical part of my business at the University.

11,494. These two clinical professors have no teaching within the University?—None whatever.

11,495. They have no theoretical teaching?—None whatever. My

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only desire is that there should remain as hitherto, a fair field and no favour.

11,496. Has this subject ever been discussed by the Senatus?—It has never been discussed by the Senatus that I know of. The only opinion on the subject that I have any liberty to quote is this, that Principal Caird and Dr. Allen Thomson and Dr. John Cowan, who were the three who took to do chiefly or almost solely with the early arrangements connected with the establishment of these chairs, are, I believe, perfectly at one in saying that the understanding was that the work and the fees were to be divided, and, indeed, that the whole thing was to be so divided between the new teachers and the old that there would be no monopoly of teaching in any way.

11,497. Then it is very probable that you are unnecessarily alarmed on the subject?—Perhaps so; but I thought it possible that the Commission would in some way or other interfere with this affair, and that was the reason why I thought it was desirable to tell honestly and frankly how the hitch had arisen.

11,498. *Mr. Campbell.*—Do these clinical professors found their requests upon anything in their commission of appointment?—No. The commission of appointment is altogether opposed to them. I have an extract from the commission of appointment here.

11,499. *The Chairman.*—I observe that in King's College, London, there is a Professor both of Clinical Surgery and of Surgery; what are the arrangements there?—Sir William Fergusson, who died the other day, was professor of both.

11,500. *Mr. Wood* is marked as Professor of Surgery in the published lists?—Yes; but Sir William Fergusson told me himself that he was professor of both up to three or four years ago, when his work was so heavy that he could not manage the systematic teaching, and he gave that part of it up, and Mr. Wood was appointed; but that was only within the last few years, when Sir William's health gave way.

11,501. Does Mr. Wood not teach clinically?—He teaches clinically, and has the name of Professor of Clinical Surgery as well as Professor of Systematic Surgery.

11,502. Are you aware how the thing is carried on in Edinburgh?—Yes; I know all about it in Edinburgh.

11,503. Does the Professor of Surgery teach clinically there?—Yes; but I would require to give an explanation about that, for it is rather a peculiar affair. The way in which the existing regulations came about was this,—and I have documentary proof for all I am saying,—that in former times medicine, anatomy, and surgery were conjoined in Edinburgh. There was one professor for the three subjects. At what date I don't exactly know, medicine was dis severed from anatomy and surgery, and a professor was appointed for medicine, and another for anatomy and surgery. Then, later on, anatomy was divided from surgery; and when that division was made, by an error which I have not been able to trace, but it was an error, the right of teaching clinically which had belonged to the conjoined chair was given to the Professor of Anatomy instead of to the Professor of Surgery. Then, after that again, at a later stage still, when Dr. Russell was appointed Professor of Clinical Surgery in Edinburgh, there were no beds assigned to him, and no means of teaching; and for many years—for, I believe, the greater part of his life—he had no wards and no beds in the Infirmary, although he was Professor of Clinical Surgery; and when he wanted to teach, he had to go and ask one of the other professors to give him a patient, or the use of some beds for the time being, in order that he might conduct this clinical

work. Then Mr. Syme succeeded to Mr. Russell, and he got beds; and, acting on this old error that I have alluded to, as to the Professor of Surgery not having the *right* to teach clinically, he threw the Professor of Surgery out of the clinical teaching altogether. That was the way in which the hitch took place in Edinburgh; but it does not exist in any other school.

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11,504. Does Mr. Spence, the Professor of Surgery here, not teach clinically?—Yes; but not on the same footing, as regards the attendance of students and graduation, that Mr. Lister does. In Edinburgh every student, whether he wishes to do so or not, must go to Mr. Lister. Professor Spence teaches practically as part of his course, without being recognised as the clinical teacher specially connected with the University. I may read to the Commission, in conclusion, what appears in the minute of the Medical Faculty in the Senate Records for 7th April 1874:—‘That, upon a consideration of the whole case, they are of opinion that the establishing in the University of special professorships of clinical surgery and medicine would be for the benefit of the medical school, but that these objects and the methods of giving effect to them should be carefully considered as regards the details, so as to give security that such new chairs shall in no respect interfere with the claims of the Professors of Surgery and Medicine, or of any other professor to whom the duty may be delegated, to take part in the clinical instruction given in the Western Infirmary, or elsewhere.’

11,505. Surely that protects you?—I think so.

Adjourned.

FRIDAY, 30th March 1877—(Sixty-Fifth Day).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, Esq., *Chairman.*
SIR WILLIAM STIRLING-MAXWELL, Bart.
DR. JOHN MUIR.

Professor GEORGE BUCHANAN, examined.

11,506. *The Chairman.*—We understand that you wish to make some additions to the evidence which you formerly gave?—Yes.

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11,507. What statement do you wish to make?—The clinical chairs should have the same position as the chair of Clinical Surgery in the University of Edinburgh,—that is, the professors and their students should have all the rights and privileges enjoyed by the other professors and their students. They should have the exclusive right to the term ‘University,’ as applied to their students, courses of lectures, class tickets, certificates of attendance, and certificates of proficiency. They should have the exclusive right to award the University medals and class honours to the students attending their lectures. They should have the exclusive right among the University professors to give the qualifying courses of clinical lectures as specified in the Ordinances. The clinical professors should have the special duty of conducting, along with the examiner appointed by the Court, the clinical examinations for graduation,—just as the Professor of Anatomy conducts the examination in

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anatomy. This would not interfere with the systematic Professor of Surgery being surgeon to the Infirmary, and illustrating his college lectures by cases in his wards to students who may visit his wards—also by his operations; but it would not entitle him to compete with his University colleague in giving the qualifying course of clinical lectures; as is the case with Professor Spence in Edinburgh.

11,508. What students can claim to be called University students, except those who are taught by University professors?—None; but the Professor of Surgery and the Professor of the Practice of Medicine still resist the claim of the clinical professors to be the only clinical professors in the University.

11,509. They resist the exclusive claims of the clinical professors?—Yes; which, we think, are involved in our appointment.

11,510. Does Professor Spence, in Edinburgh, give a qualifying course?—No; he visits the wards and operates, but he does not compete with Professor Lister in giving the qualifying lectures. Dr. Macleod is Professor of Surgery, and I am Professor of Clinical Surgery in the University of Glasgow. If it be said that the systematic professor has hitherto given lectures on clinical surgery, it must be remembered—first, that formerly there was no clinical professor to do the duty; second, the systematic professor did not give clinical lectures *ex officio*, but only as surgeon to the Infirmary when he happened to have that office, which was only occasionally; third, without that, the systematic professor already has the monopoly in the University of more courses and fees than any other professor in the University, except the Professor of Anatomy, who devotes his whole time to the duties of his chair, while the Professor of Surgery only meets his systematic class one hour a day. Each student who passes through the University attends the systematic professor as follows:—

Lectures on Surgery, 1st session, . . .	Fee 3 guineas.
Lectures on Surgery, 2d session, . . .	Fee 2 guineas.
Operative Surgery, . . .	Fee 2 guineas.

The last two courses are not enjoined in the Ordinances, and are called optional; but the second course of lectures is really imperative, because the professor divides his lectures into two sections, each of which he gives in alternate sessions; and the operative course is necessary, because all candidates for degrees are examined in operative surgery. Besides the above courses, for which he obtains seven guineas from each student, the systematic professor is now claiming to share with the clinical professor the lectures and fees in clinical surgery. The Professor of Systematic Surgery should not be allowed to share with the clinical professor the duty of conducting the clinical examinations of candidates for degrees, because the systematic professor already has a greater share than any other professor in the examination of candidates for degrees. Along with the surgical examiner appointed by the Court, he submits each candidate to three separate examinations, viz.:—1. A written examination in surgery; 2. An oral examination in surgery; 3. An examination in operative surgery. Besides these, he claims to have a share, along with the clinical professor, in the clinical examination.

11,511. Before you were appointed, was there any clinical surgery taught in the University?—Not in the University.

11,512. Or in connection with the University?—None.

11,513. Was there no clinical teaching at all?—No clinical teaching connected with the University *ex officio*, but the Royal Infirmary was open to any surgeon that the directors elected, professor or not.

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11,514. Is that not still the case?—Yes, the Infirmaries are open; but we claim as professors to have the right of giving the qualifying courses of lectures.

11,515. There were examinations in clinical surgery before you were appointed?—There were.

11,516. And the only instruction that was given in it then was by the surgeons of the Infirmary, whether University professors or not?—Quite so. There are now six other surgeons in the Infirmaries of Glasgow who compete with me besides Dr. Macleod.

11,517. None of their classes of course qualify for the University examinations?—They do; but by the Ordinances they ought to be recognised by the University Court.

11,518. Then it seems to be the custom of the Glasgow University to accept the certificates of everybody that chooses to lecture?—Yes; in the case of clinical lectures.

11,519. *Sir William Stirling-Maxwell*.—Do you mean that as soon as a surgeon obtains that position, they do it without his making a personal application?—Hitherto that has been the case.

11,520. *The Chairman*.—Has this question which has occurred between the new and the old professors been the subject of discussion in the Senatus?—Yes.

11,521. Has the Senatus come to any resolution on the subject?—In May 1876 a Committee of Senate was appointed to report on the position of the Clinical chairs, with a view to settle the points of difference between the systematic and clinical professors. Before commencing their inquiries they desired to have a written acknowledgment from the professors of medicine and surgery and the clinical professors that they would abide by the decision of the University authorities on the matter. The clinical professors gave such written obligation; the systematic professors refused to do so. Hence the appeal to the University Commissioners.

11,522. *Dr. Muir*.—Had you and Dr. Gairdner and Dr. Macleod any conversation on the subject now at issue between you, and did you come to any arrangement privately with them?—When it became probable that I would be the first clinical professor, Dr. Macleod in a letter to me stated that there were certain stipulations which he meant to insist upon before he consented to the institution of the chair. I replied that, so far as I was personally concerned, I was willing to agree to these proposals with Dr. Macleod as an individual; but I stated to him that he must make these proposals to the Senate, and not to me, and that I was content to abide by the decision of the Senate upon the matter.

11,523. *The Chairman*.—And no further agreement has been come to between you?—No further agreement except an understanding which I gave him that I was willing that for his tenure of office he should share the duties and fees connected with the teaching of clinical surgery; but I distinctly stated that he must make his proposal to the Senate, and I would act as the Senate decided.

11,524. Do I misrepresent you when I say that your evidence seems to me to amount to this, that the two systematic professors, although they may be appointed medical officers to the Infirmaries, are to be the only men so appointed whom the University Court are not to acknowledge as giving qualifying lectures in clinical surgery or medicine?—If any other physician or surgeon to the Infirmaries conducts another extra-academical course corresponding with the systematic lectures of Dr. Macleod and Dr. Gairdner, he should not be allowed to compete in another subject. Each teacher or professor should select his subject and devote his

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energies to it, as is the rule in the University of Edinburgh in reference to surgery, where the professors are not allowed to give qualifying courses upon two subjects, and where no extra-academical teacher on surgery is allowed to give more than one qualifying course.

11,525. *Dr. Muir.*—How many qualifying courses can they give in Glasgow?—The University at present accepts certificates for clinical lectures from physicians and surgeons in the Infirmary, without reference to what other subjects they may teach.

11,526. *The Chairman.*—There is no rule in Glasgow of the kind which you say exists in Edinburgh?—No; but the Ordinances specify that ‘no attendance on lectures by a private teacher shall be reckoned, if the teacher gives instruction in more than one of the prescribed branches of study; except in those cases where the professors of the University are at liberty to teach more than one branch.’

11,527. And your contention really is for the establishment of such a rule?—It is, by defining the privilege of the clinical professors.

11,528. Has this matter ever come before the University Court?—It has.

11,529. With what result?—At the commencement of session 1875, Dr. Macleod began his clinical course by a lecture, in which he stated that as Professor of Surgery in the University he performed one half of his function in the University and the other half in the Infirmary, and that the one was the supplement of the other. I brought the matter before the Court in consequence of this published lecture, and the Court asked Dr. Macleod to explain himself. He explained it away by saying that he did not mean to assert that the lectures which he gave in the Infirmary were a part of his duty as the Professor of Surgery, and in consequence of that assertion my application was dismissed and the Court came to no finding.

11,530. *Dr. Muir.*—Can you put in a printed copy of Dr. Macleod’s lecture?—I can.

11,531. *The Chairman.*—Have you any further remarks to make?—The Court has since itself taken up the question with reference to the recognition of lectures, and the following excerpt of a minute of 7th March 1877 has been sent to me by Dr. Anderson Kirkwood, Secretary to the Court:—‘On the report of Drs. Cowan and Kirkwood with reference to the recognition of clinical lectures in the infirmaries (which has in some cases been implied rather than expressed), the Court resolved that it is inexpedient to go back upon the past, but that the practice hitherto is not to be drawn into a precedent, and that for the future such lecturers must obtain the formal recognition of the Court and of the Chancellor in terms of the Ordinance.’

11,532. There has been no time yet for any action to be taken on that decision of the Court?—No.

11,533. You suggested that the Professor of Surgery, although he was not to be entitled to give the qualifying course, might illustrate his lectures to students in the Infirmary. You think there would be no difficulty about that?—None.

11,534. Would any students attend him?—Every operating day the theatre would be full. And he has the opportunity before and after each operation of explaining the case precisely as any other surgeon has; and at times, when the other surgeons are not engaged with all the students, the students might go into his wards and see the patients. As an illustration, I may refer to the practice of Professor Spence, who is followed by crowds of students in the Infirmary of Edinburgh, and his ward visits are immensely valued by the students.

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11,535. And his course is not recognised as a qualifying course of clinical surgery?—It is not.

11,536. Is there any dispute between you and the systematic professor on the subject of awarding the prizes in clinical surgery?—I should like specially to call attention to that. As clinical professor I claim the same right as any other professor of the University to award the University medal and class honours to the students attending my lectures; and an opinion on that subject was given by Professor Berry in May 1875, at the request of the Medical Faculty, from which I may read the following extract:—‘Perhaps I may be allowed to add, although the point is of minor importance, and it is not one in regard to which there is properly any question of legal right, that it seems to me only fair that the medals in clinical medicine and clinical surgery should be awarded by the professors of these branches. I think the special position as clinical professors which they undoubtedly hold gives them a just claim to that privilege.’ But that is resisted at the present moment in a way that I shall now state. Last session, 1875–76, in consequence of the anomalous position of clinical teaching, a student did not attend the lectures of one teacher, but attended on Tuesday with me, and another day with Dr. Macleod or another surgeon, so that the course was a joint course. I submitted to the medal being awarded by taking the opinion of Dr. Macleod with reference to the conduct of the students upon the one day, while I gave my opinion with reference to their conduct on the other day. At the end of the session the dissatisfaction was so great that I announced to the students that I would not submit to similar interference in future. This session, in consequence of a new action of the Infirmary managers, each surgeon has a class of his own; my students attend me, and attend no other person. In consequence of Dr. Macleod and Dr. Gairdner refusing to recognise the authority of the Senate, formerly referred to (11,521), my clinical colleague and I determined to act upon the opinion of Mr. Berry, and upon a minute of the Medical Faculty of date 6th November 1875, to the effect that those students only who attend the lectures of the clinical professors for a period of not less than three months shall be entitled to compete for the University medals and certificates of merit. I therefore determined this session to assert my privilege as clinical professor to award the clinical medals.

11,537. Suppose the students took their clinical lectures from extra-mural teachers, would there be no prizes in that case?—They might be given by these teachers, but not by the University. There are no University prizes for those who are not students of the University professor.

11,538. *Dr. Muir*.—Are all prizes not given by the University itself?—All University prizes are, but if Dr. A. B. chooses to give a course of instruction he may give prizes as a private individual. Any man may give rewards to anybody for anything he chooses. He has no official position in doing so.

11,539. *The Chairman*.—University prizes are only given to students who attend the lectures of the University professors?—Of course.

11,540. *Dr. Muir*.—And, in consequence of your decision, have the medals been placed at your disposal by the University?—In consequence of Dr. Macleod refusing to submit it to the decision of the Senate and Court (11,521), and in consequence of Mr. Berry’s opinion that we had the right to give the medal, I decided this year to do it on my own responsibility. On Saturday last Drs. Macleod and Gairdner brought the matter before the Medical Faculty; the chairman ruled that it was not competent, and the matter dropped. On Tuesday last Dr. Macleod asked his students to remain in his class-room after the lecture, and

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announced to them that he had heard that I intended to award the University medals to those students only who had attended me the whole session; the result of which was, that the students met, appointed a committee to consider my action. A deputation came to me and told me what had been done. In consequence, I read the minute that I have read to-day (11,536), and the result was that they went next day,—on Wednesday last,—to Dr. Macleod and informed him that they were satisfied; and this morning I awarded the clinical medals and gave the certificates of merit. But Dr. Macleod wrote a private note to the Principal last night asking him to interfere and prevent me doing this. It was too late; the medal was awarded, my certificates were sealed up and addressed to the students. And I ask the University Commissioners to say whether my action is not a proper one for a man to whose care is committed the first incumbency of a chair, the privileges of which and the responsibility of which he is bound to support and maintain.

11,541. Have you anything further to state?—No.

Professor M'CALL ANDERSON, examined.

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11,542. *The Chairman*.—I understand that you are anxious to make some additions to your former evidence?—I wish, in the first place, to withdraw a statement which I made at the close of my former evidence. I said that I had no desire to interfere with the present Professors of Medicine and Surgery in giving courses on clinical medicine and clinical surgery in competition with the clinical professors, provided it was distinctly understood that no future professor was to be allowed to do the same. But I wish to withdraw that statement now, because I find that matters are getting more complicated every day, and things have occurred even within the last few days which render it very undesirable that such a state of matters should continue.

11,543. Is not the University Court the proper authority to terminate any such inter-University struggles?—The University Court seems to have a delicacy in interfering in a matter where the interests of professors in the University are supposed to be specially involved.

11,544. *Dr. Muir*.—Did not the University Court establish the two new chairs?—Yes.

11,545. Therefore it would seem to be their duty to regulate everything connected with them?—We have been professors for three years now, and they don't seem to have been able as yet to alter matters in the slightest degree.

11,546. *The Chairman*.—The point has never been by any of you formally brought before the University Court?—Some months ago I asked for the appointment of a committee of the Senate to consider the whole matter, and to get all the differences settled. Dr. Buchanan and I, the clinical professors, agreed to abide by the decision of this committee provided the Professors of Medicine and Surgery would agree to do the same. The Professors of Medicine and Surgery refused to come under any such obligation, and the consequence was that the committee of Senate was dissolved, so that we are in exactly the same position now as we were the day we were appointed.

11,547. Would not your natural course have been to appeal that judgment of the Senate to the University Court?—I doubt if it would have had any influence.

11,548. We shall be glad to hear what you desire to state to us on the subject?—What I desire is simply this, that the clinical chairs should

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be put upon exactly the same footing in every respect as all other chairs not only in the University of Glasgow, but in all the Scotch Universities. I see no reason whatever for making exceptions in reference to these two chairs, merely because they are new chairs.

11,549. In other Universities, although clinical teaching is open to the holders of any medical chairs, it is the teaching of the clinical professors only that qualifies?—Yes.

11,550. With this exception, that the lectures of extra-mural teachers, if recognised by the University Court, may qualify?—Certainly; and in Glasgow it happens that apart altogether from the systematic Professors of Medicine and Surgery there are six extra-academical teachers in clinical medicine and six extra-academical teachers in clinical surgery who can compete with Dr. Buchanan and myself.

11,551. And the only persons you think ought not to compete with you are the Professors of Systematic Medicine and Surgery?—Any professors in the University. Any person who is a professor in the same University should not give a qualifying course on the same subject as his colleagues,—in the same way as I should consider it wrong to give a course of lectures on the practice of medicine in competition with Dr. Gairdner, because he is a colleague of my own, and I ask the same from him.

11,552. And even with reference to the extra-mural teachers who are qualified, you would think it wrong—probably illegal,—that the same man should be recognised in two separate departments?—I would; but that is a peculiarity in Glasgow. They do recognise them in two departments. In Edinburgh there is a rule that an extra-academical teacher can only be recognised in one subject, but in Glasgow it seems, whether legally or not I don't know, they recognise them in more than one subject. For example, take Dr. Wood Smith—he is a lecturer on practice of medicine and a clinical teacher in the Royal Infirmary; his tickets would be recognised by the University of Glasgow both for his class of practice of medicine and for his class of clinical medicine.

11,553. Then, according to the Glasgow practice, the lectures of one extra-academical teacher may be accepted as qualifying for two departments?—Apparently so.

11,554. But you maintain that that rule ought not to extend to professors, that because a man is a professor he is to be put to a disadvantage in that respect?—I would not say that. I say that if a man is a professor, while that gives him certain privileges, it should entail upon him certain restrictions. If the Professor of Medicine is to be entitled to give a course of lectures in practice of medicine and a qualifying ticket in practice of medicine, and also to give a course of lectures in clinical medicine and a qualifying ticket on clinical medicine, surely, in common fairness, I ought to be allowed to give a course in practice of medicine, and compete with him. But if I were to apply to the University Court to be allowed to give a course of lectures on practice of medicine, I should be refused at once; so that it is perfectly unjust.

11,555. *Dr. Muir.*—Did Dr. Buchanan and you endeavour to arrive at any understanding privately with Dr. Gairdner and Dr. Macleod before the arrangements regarding your chairs were completed?—I think I had better answer that in this way, that I came under no obligation to Dr. Gairdner in the matter; and I think it only fair to Dr. Gairdner to say that he never asked me to come under any obligation to him. Indeed, I should consider it a grave impropriety on the part of any professor to make use of his position to extort terms from a candidate for another chair as the price of his not opposing him; and I have yet to learn that

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the affairs of a great national institution, such as the University of Glasgow, are to be regulated by private arrangements or private agreements, rather than by what is most conducive to the welfare of the University and of the public for whom the University exists.

11,556. *The Chairman*.—There was, I suppose, clinical teaching in the University before the Clinical chairs were instituted?—Before the Clinical chairs were instituted all the clinical teaching took place in the Royal Infirmary.

11,557. And it still takes place in the Royal Infirmary?—No, there are now two infirmaries. All the physicians and surgeons of the old Infirmary gave clinical lectures, and were recognised,—Dr. Buchanan and I among the number. But when the Western Infirmary was opened, the University students migrated to the Western Infirmary, and their clinical teaching took place there.

11,558. But before you were appointed professors, you were, as clinical teachers, just in the same position that the two systematic professors are?—Certainly.

11,559. And your contention is, that, you having been appointed clinical professors, their right to teach clinically, or at least to have their tickets recognised as clinical teachers, ought to cease?—I have not the slightest objection to their teaching clinically as much as they like, by which I mean going round their wards with as many students as care to go with them, examining the patients, treating them, and making any remarks upon them they like. Clinical lecturing is what Dr. Buchanan and I are bound to undertake—namely, to give two lectures every week in a lecture-room, which is a distinct thing altogether. We want to prevent them giving a qualifying course of lectures, but we don't wish to prevent them teaching clinically.

11,560. Do you think the students would attend their clinical instructions as well as yours if yours were alone to qualify?—I think I can best answer that question by referring to the case of Edinburgh, where Professor Spence, the Professor of Surgery, teaches clinical surgery, but is not allowed to give a qualifying course of clinical surgery; I understand he has a very large following of students.

11,561. *Dr. Muir*.—In the Infirmary?—Yes.

11,562. But Dr. Gairdner and Dr. Macleod don't wish to lecture in the lecture-room on clinical medicine and clinical surgery, do they?—Yes, they do, that is their whole contention. They want to be allowed to give two qualifying tickets,—in practice of medicine and in surgery, and, in addition, on clinical medicine and clinical surgery, competing with the professors specially appointed to teach these subjects.

11,563. *The Chairman*.—They had the power of doing that before you were appointed?—Yes.

11,564. And your contention is that your appointment ought to have the effect of depriving them of that power?—Of the power of giving qualifying lectures.

11,565. And they very naturally contend the reverse?—They contend the reverse.

11,566. Have you anything further to say on the subject?—I would say, generally, that I think these chairs should be put upon the same footing as the chair of Clinical Surgery in Edinburgh; and, if you will allow me, I will read an extract from a letter which happens to be published this very day, by Professor Lister, the Professor of Clinical Surgery in the University of Edinburgh. It has nothing to do with our University, but it contains one or two passages which I should like to read. He says, 'Mr. Bryant makes the very true remark: "By no system, however

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good, can a bad teacher be made bright ;” but I must demur entirely to the statement which he couples with it : “ By no system, however bad, can a good one” (teacher) “ be hampered.” However great a man’s gifts and zeal may be, he cannot fail to be hampered, with respect to the great object to which I have alluded, if, even though he have the title of Professor of Clinical Surgery, instead of teaching twice a week his own college class in full regular attendance, he shares the duty with one or more surgical colleagues of whose doings he has no cognisance either as to the subjects that are brought forward by them or the doctrines enunciated.’ Further on, he says, ‘ I am, therefore, sure that any one must be hampered as a clinical lecturer who is also charged with the duty of systematic teaching, whether of surgery or any other subject.’ And again, he says, ‘ It is only fair to the University of Edinburgh that I should say that she allows free trade in the teaching of clinical surgery, as in other subjects of the medical curriculum. The Professor of Systematic Surgery, indeed, though perfectly at liberty to give bedside instruction, is not allowed to give clinical lectures, any more than I am permitted to give systematic ones, because the two chairs are distinct, and by a rule of the University no professor is allowed to trespass on the province of a colleague.’ Now that is exactly the position which Dr. Buchanan and I take up,—that as the University has made us the special Professors of Clinical Medicine and Surgery, to give these qualifying lectures, none of our colleagues should be allowed to compete with us.

11,567. I suppose your contention also is that you have the exclusive right to award University prizes in that department?—Certainly ; and it is one of the many results of allowing our colleagues to compete with us, that they are not content with merely competing with us, but insist on claiming a share in the whole of our privileges, including the giving of honours.

11,568. Were there any University prizes in the clinical teaching before you were appointed?—No. The prizes came into being after we were appointed.

11,569. The funds by which they are provided come from the Senatus?—A sum of money was given by it to the Medical Faculty for the purpose.

11,570. Does that exhaust what you have to say?—That is only one thing that they claim. They claim everything else. For instance, to-morrow morning the clinical examinations begin ; Drs. Gairdner and Macleod will be certain to come to these clinical examinations and take part in them, in addition to conducting their examinations in systematic medicine and systematic surgery.

11,571. They did all that before you were appointed?—Somebody had to do it. But what we contend is, that the same thing should happen as happened in connection with the Law chair in the University of Glasgow. There used to be just one law professor in the University of Glasgow, but some years ago a chair of Conveyancing was instituted ; the Professor of Law immediately gave up teaching conveyancing, and giving prizes in conveyancing, and examining in conveyancing. It was all left to the new professor who was specially appointed to perform that duty.

Adjourned.

MONDAY, 2d April—(Sixty-Sixth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.
 THE DUKE OF BUCCLEUCH.
 SIR WILLIAM STIRLING-MAXWELL.
 DR. JOHN MUIR.
 JAMES ANTHONY FROUDE, Esq.
 ARCHIBALD CAMPBELL SWINTON, Esq.
 PROFESSOR HUXLEY.
 JAMES ALEXANDER CAMPBELL, Esq.

BENJAMIN WARD RICHARDSON, M.D., examined.

Benjamin W.
 Richardson,
 M.D.,
 London.
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11,572. *The Chairman*.—You are a Doctor of Medicine of the University of St. Andrews?—Yes.

11,573. And you are a Fellow of the Royal College of Physicians, London?—Yes.

11,574. You are at present a member of the St. Andrews University Court?—Yes.

11,575. How long have you been so?—I have twice been elected assessor for the General Council, and am now in the middle of my second period of office.

11,576. Is there not in London an association of St. Andrews medical graduates?—There is an association of the graduates, including now other graduates as well as medical.

11,577. Are you connected with that association?—I am President of the Council of it.

11,578. What is the object of that association?—It was originally founded when the Medical Bill of 1858 was before the Government. It was proposed on that occasion to exclude St. Andrews from representation in the Medical Council, and a number of us joined to oppose that measure as unfair to the University. We made representations to Mr. Cowper-Temple, who brought in the Bill, and to Dr. Brady, which led them to reconsider their decision; and, at our suggestion, they linked us with Glasgow in the representation, so that our representation now is through Dr. Allen Thomson. We then formed an association, seeing that the question of the representation of the Universities in Parliament would probably come up before long, and we formed a very strong body, amounting to upwards of 600 members. We acted together until that question came up, when it was proposed that we should not be represented; but we moved the Government very much on the subject, and accordingly we were linked to Edinburgh in the matter of parliamentary representation, so that we are now represented by Mr. Lyon Playfair. Since then, we have been connected more closely with the University by means of the University Committee, which is elected by the General Council of the University of St. Andrews. The Council elected Principal Shairp, Professor Pettigrew, Professor Swan, with myself as convener, and all the Council of the St. Andrews Graduates' Association, to represent them in London as the London Committee of the University Council. That continues to hold us together as a body.

11,579. I think your evidence is to be directed to the subject of medical graduation in St. Andrews?—Yes, that is what the graduates

whom I represent—the large body of medical graduates—wish me to speak to.

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11,580. Will you give us your views upon that subject, in any order you think desirable?—First of all, I would like to submit what is our view in reference to the admission to graduation previous to the Ordinance of 1863. Previous to that time an average of seventy-six gentlemen per annum graduated at St. Andrews, for ten years, these all being men who had undergone examinations for diplomas in medicine and surgery, mainly in England, and before the College of Surgeons and the Apothecaries' Company. They were, I may say, gentlemen of respectability and education and position, and from my knowledge of them—for most of them afterwards became members of the association—I am bound to say they always maintained a high place. I know of no one graduate who discredited the degree in any way. I think they stood well, as I will show by and by, as practitioners. They were admitted without any restriction as to number at that time,—as many men as could pass through the examination passed. The Commissioners of 1863 reported unfavourably upon that. They said that so large a number of men were admitted to this degree that there should be a limit put upon it, and they compared those admissions with the number of admissions to the same degree given annually by the University of London. They argued on this comparison against the propriety of the large number of admissions at St. Andrews. We are of opinion, with great respect, that the Commissioners of 1863 did not decide on the strict merits of the case. We say that the comparison is not fair at all. We say that the University of London did not at that time, and does not now, meet the requirement for the degree which springs out of the system of medical education in England, as at present existing, and under which the majority of English medical men are trained and qualified. We are of opinion that if the only entrance into medicine were through the degree of M.B. or M.D. of the University of London, by the examination of that University, the number of medical men actually required for the public service in all its branches could not possibly be supplied. The degree, in fact, would be beyond the reach of that large class of men who form the backbone of the profession of medicine; and we believe there must always be (I am speaking from experience of an extended kind) a large majority of gentlemen acting as practitioners of medicine, who at first enter their profession by an examination pitched at a fair but moderate standard of severity. These men often rise in position in places where they are in practice. They practice for a good many years, and then some of them retire into consulting practice, others become physicians to hospitals, while others want simply to retire from the profession altogether. They have had no opportunity of going to a University, and they require to take a degree. We maintain that our system of examination was of benefit in admitting those gentlemen, who were men of local importance in their way, and that it was a just and equitable thing to allow them to come up without any restriction as to the number that should come up, except the restriction imposed by age, which we think is a very fair one. We do not see any reason why the number should be restricted to ten. We think the restriction should be placed on the examination and on the age of the candidates, not on the actual number. Then, we are of opinion—the majority of us—that the University of London does not afford those men such an opportunity as the Commissioners supposed, because the University of London insists that, before they can come up for their degree, they shall go through a special course of hospital study, which

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necessitates their withdrawal from practice for some time. We maintain that this is unnecessary, because those gentlemen are already in practice on their own account,—many of them possessing a large practice, and holding responsible positions,—and we say they do not require to go through any period of study in hospital. They can learn everything they want in their own practice. We are of opinion that the high standard of study and competition which the University of London insists upon is not doing good to the practical study of medicine. I am decidedly of opinion personally that practitioners who study for a great many years simply to go through that examination, and do not study with their hands in the surgery and in the surgical manipulation and medical examination of persons suffering from disease, are not so well qualified as those men are who are practically taught from the first. We do not think it is a good standard for the majority of medical men. We think that the University of St. Andrews entirely met the difficulty when it allowed practitioners to take the diploma of the College of Surgeons or the Licentiatehip of the Apothecaries' Hall, and then to come up for examination. We are also very strong on the character of the examination which was passed in those days at our University. It has been much run down because it has not been of the same standard as for young men in the other Universities; but we say it has always been a good, sound, practical examination. It has always been the same as for the membership of the Royal College of Physicians, London; it has always run side by side with that; and in the year 1854, when I passed first in St. Andrews, and afterwards in the College of Physicians, a little later than that time, I can say, from comparison of the systems of examination, that the St. Andrews examination was the most stringent. The time was longer and the subjects were more difficult. When we appealed to the Privy Council on this point some years ago, Dr. Sedgwick and I looked at the facts as to the value of our examination as compared with certain other bodies, and we came upon some very interesting particulars. We thought it would be fairest to look at the examination which the Army and Navy Medical Department institutes with respect to gentlemen who are already qualified. We examined the rejections from several of the Universities and examining boards, as compared with our own. We took the Royal College of Surgeons of England and the University of Edinburgh, because in point of the numbers who presented themselves for examination these bodies approached nearest to us, and we found that while of our graduates only 8·33 per cent. were rejected by the Army and Navy Boards, of the Doctors of Edinburgh 18·18 per cent. were rejected, and of the members of the Royal College of Surgeons 32·50 per cent. We say that shows that our examination must have been a very fair one,—quite as good as that of the University of Edinburgh, or that of the Royal College of Surgeons, to judge by the test I have mentioned,—and we therefore think that no fault should be found with the examination which we instituted.

11,581. *Professor Huxley*.—In what year was that?—In 1867.

11,582. After the Ordinance came into operation?—It includes both; it went over both. At the same time, I am requested very earnestly to say, that we do not put ourselves forward as representing our examination to be perfect. We are quite willing that any examination should be instituted. We do not wish to limit the scope of the examination in the future. It has been thrown out against us very strongly that the men who were admitted to degrees, when seventy-six were admitted annually, were men of a very common class in their profession. We say that is a most unjust and improper observation; and we collected the facts about that in 1867;

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We found that in 1867 there were no less than thirty-nine graduates of our University represented in the hospitals of London either as teachers or physicians, which was a very large number,—larger than the number from any other body. We had our representatives in St. Bartholomew's, Guy's, St. George's, Westminster, London, Charing Cross, Bethlehem, St. Luke's, Royal Free, Consumption, Queen Charlotte's, Samaritan, Great Northern, Cancer, Metropolitan Free, City of London for Diseases of the Chest, French, Soho Square for Women, West London, Royal Infirmary for Diseases of the Chest, Ear Infirmary, Farringdon, Finsbury, City, Marylebone, Pimlico, Islington, Western, Peckham, and St. George's and St. James's Dispensaries.

11,583. *The Chairman.*—Do you not think that fact may be accounted for by your graduates being drawn chiefly from the London schools?—It may, but it shows they were respectable men,—I mean gentlemen of high class,—or they would not have got those appointments.

11,584. I see that in 1863 there were 68 per cent. of your graduates who came from the London schools?—Yes. Of course a great many do come from that source, but we merely urge this as showing that our men were men of good position in the profession. Then, as regards the provinces, we find that our graduates were present in Queen's College, Birmingham, Newcastle-upon-Tyne College; in the Schools of Medicine at Edinburgh, Dublin, Liverpool, Leeds, Manchester, Sheffield, Hull, Sydenham College, Birmingham; in the hospitals at Belfast, Waterford, Glasgow, Inverness, Leith, Dundee, Lincoln, Derby, Carlisle, York, Stafford, Nottingham, Birkenhead, Brighton, Bradford, Bath, Leamington, Winchester, Cheltenham, Halifax, Bristol, Rochester, South Staffordshire, Worthing, Chorlton, Portsmouth, Chatham, Coventry, Worcester, Glamorgan, Wrexham, Stockport, Hertford, Bournemouth, Weston-super-mare, Devizes, Margate, Haverfordwest, Hartlepool, Sussex County, Sunderland, Limerick, and Queenstown; and in the County Asylums of Middlesex, York, Cambridge, Derby, Lincoln, Sussex, Surrey, Stafford, Lancashire, Cheshire, Worcester, City of London, Kent, Clonmel, Donegal, Inverness, Fife, Glasgow, and Edinburgh; and that our graduates included two deputy-lieutenants, twelve Justices of the Peace, one visitor in lunacy, ten coroners and deputy-coroners, five examiners in medicine, six officers of health, three Fellows of the Royal Society, eleven Fellows of the Royal College of Physicians of London, which at that time was the largest number from any Scotch University on the roll. Those who are aware of the exclusive character of the Fellowship of the Royal College of Physicians will see that graduates at St. Andrews must have been good men to get that position. Lastly, there were fifty-five Fellows of the Royal College of Surgeons of England by examination. I think these are the principal points upon which I am instructed with regard to the first head.

11,585. Prior to the Ordinance of 1863, the average number of medical degrees you conferred in the course of a year was about seventy-five?—Yes; seventy-six, I think, was the average the Commissioners reported.

11,586. That was the largest number of degrees in medicine then conferred by any University in the United Kingdom?—I think Edinburgh was nearly the same, within one or two of the number occasionally.

11,587. But not on an average?—No; that includes one of the years when so many went up before the University was closed, which adds a little to the number. Without that, the average would be about seventy-two.

11,588. That was the year 1861?—Yes.

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11,589. There were 107 degrees conferred in that year?—Yes.*

11,590. You are aware, I suppose, that of those graduates, none came from any of the other Scotch Universities?—Some few came who had not, for some reason or other, graduated; but you may take it practically that there were none from the other Scotch Universities.

11,591. In the report of the Commissioners I see it is stated that there were none.—I believe that is not quite correct. The fact was that some men became army surgeons without positively passing through the University, but taking a surgical qualification, and they thus lost their terms, and afterwards came to us. We have a few of these on our list, but they are so limited that the number is not worth considering.

11,592. And probably you may be misled by the fact that some of your graduates came from the extra-academical schools of Glasgow and Edinburgh?—No, I think a few came from Glasgow University. I know one or two instances where application was made to me by gentlemen who had not completed their terms; but you may practically say that our graduates were limited to those outside the University.

11,593. And substantially your graduates came from England?—From Ireland and England.

11,594. How many from Ireland?—That I do not know, but a great many. We have had as many as 100 on the St. Andrews graduates' list, and more than that, from Ireland. During the general election, I think there were more than that.

11,595. Do you mean from the University of Dublin?—No; Irishmen who had graduated at St. Andrews. I should add, however, that the number I have mentioned includes Irish medical graduates both of Edinburgh and St. Andrews, which unite in sending a member to Parliament. The actual number of medical graduates of St. Andrews in Ireland, whose addresses were known in the years 1876–77, was seventy-two.

11,596. *Professor Huxley*.—With respect to the mode of examination before 1862, it has been stated to us in evidence that, if there was anything wrong with the examination, it lay in the fact that it was virtually in the hands of one man at that time, and that he was all-powerful, and one man cannot be infallible. Is that so?—I think not. There was one man all that time through who was one of the most conscientious and honest men ever concerned in any examination, the late Dr. Andrew Anderson, of Glasgow, who was very determined with respect to the examinations, and over whom, I am sure, Professor Day had no control. I do not speak of the rest, because I believe they were equally conscientious; but Dr. Anderson's examination in the practice of medicine was specially severe.

11,597. Do you think that the present system is better than that before 1862, or otherwise? I am referring to the fact that the University is restricted from granting more than ten medical degrees in the year.—I think it is not so good as that which previously existed.

11,598. It has been stated to us by a witness that, if any change were

* In reference to questions 11,585 to 11,589, the witness subsequently sent the following explanation: 'In answering these questions, I followed the Report of the Royal Commissioners of 20th Dec. 1861, which treats of the ten years 1851 to 1861 only. I should have put in in addition, but that it escaped me at the time so to do, a more extended table of the number of graduates of medicine of St. Andrews from the year 1836 to 1862, which was published in the *Transactions of the St. Andrews Medical Graduates' Association* in 1868. This table shows that the average number of medical degrees granted in the period of years named, viz. from 1836 to 1862, including those granted in 1862, when so many gentlemen availed themselves of the last opportunity of obtaining the degree by examination without limitation of number, was 72.50 annually.'

made at all, it would be better to go back to the old system prior to 1862. Is that your opinion?—With certain modifications, which I shall state under another head.

11,599. *The Chairman*.—Then perhaps you had better proceed with your remarks.—My second head has reference to the effect of the limitation of the number of admissions, from the year 1863, to ten in each year. The Commissioners of 1863 argued that there was no occasion for persons going to St. Andrews for a medical degree, because the same persons could elsewhere get a licence to practice. That is not a strong argument. We respectfully submit that, when the licence which can be granted is taken, it does not meet the necessity. The licence of the Royal College of Physicians, London, of the Royal College of Physicians, Edinburgh, or of the King's and Queen's Colleges of Physicians, Ireland, we say, does not meet the case. Those men are fully qualified to practise medicine and surgery, and they simply want the title of M.D. They do not want the degree for a licence to practise, they never did; and in that they differ from those who possess degrees granted by other Universities. They want the title. In England it is essential in nearly all provincial hospitals and most of the London ones that the applicant for a post shall hold the degree of M.D. Perhaps it is a foolish distinction, but it is a distinction of a very marked kind, that a man to be a physician must be an M.D.; so that, though he may be a Fellow of the Royal College of Physicians, he is not considered to have the proper status until he has got the title, and indeed in the Royal College of Physicians, until lately, none were admitted unless they possessed a University degree. There are two or three gentlemen now who do not hold it, but these are quite exceptional cases. It is the same all through the appointments to lectureships and through hospital appointments; and it is more particularly the case with gentlemen who have had a good position, and who wish to retire partly from general practice and go into consulting practice. Scarcely a week passes in which I am not applied to by gentlemen in reference to this very matter. They want a degree because they want the title of doctor, and without a degree they cannot practise as consultants. We say that the effect of this system is not to injure the Scotch Universities, but rather to get men to esteem the title they may gain of Doctor. For instance, the licentiates of the Royal Colleges of Physicians of Edinburgh and London style themselves Doctors. In addressing a man now, you do not know, though he styles himself Doctor, whether he is a Doctor or not, and I am sometimes obliged to apply to the Directory to see whether a man really is a Doctor. A great many men also go to Brussels; and we feel it a serious grievance that the University of Brussels has instituted an examination specially for English graduates. Some go to America for the degree of Doctor, some go to the German Universities, and now a number are going to Durham, which is our rival. It has followed us in everything. It admits an unlimited number. It has the same examination that we have; and we think it very hard indeed that such rivalry should be put before the University of St. Andrews, which has worked well, I think, for its graduates.

11,600. Can you tell us what number of medical degrees are conferred in the course of a year at Durham?—The system has not been in operation there for a year yet.

11,601. *Mr. Froude*.—Is no residence required?—None; and I may say, from the Professor of Medicine at St. Andrews, that of forty applications he has received from gentlemen who wished to pass, some wish to withdraw their names from our University, because they are going to

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Durham, and because they find they can go there without difficulty. That, of course, is a very serious grievance indeed. Well, then, we think that the limitation of the number of men admitted to ten per annum is not a logical limitation. We say it may exclude some who would be unworthy candidates, but it also excludes many men who would be very worthy candidates indeed. To limit the number to ten is only embarrassing and unjust to the University, and, indeed, many of our graduates would prefer that the degree should be taken away altogether rather than that this limitation should exist, because it conveys the idea of a slight, and causes a great deal of trouble and anxiety. The applications made to Professor Pettigrew are so many that he really does not know how to decide who shall be admitted and who shall not, so that the effect is practically this, that the gentlemen who want to come forward write to a number of men who they know have some influence in the profession, or in science, or in the University, and get them to recommend them and give them special certificates. The Chandos Professor of Medicine and Anatomy is guided to some extent by such testimonials, but the selection of the men, he says, becomes a most invidious task. Some men wait ten years to be admitted. I know one case of a gentlemen who waited ten years, and he is one of the most intelligent practitioners in London. We think that this is not at all fair, and that the regulation should be so arranged as to admit of candidates being selected by examination and by age only.

11,602. *The Chairman*.—What alteration would you propose to make? —I should say that, of course, we require a good constituency if St. Andrews is to be well represented. That is another point I am very earnestly requested to urge upon the attention of the Commission. We are dying out fast as regards medical representation. Our association, for instance, is practically ceasing to exist, because many of the men are advanced in life—past middle age—when they obtain the degree, and the regulation as to ten per annum is wiping out the medical degree from the University. We are almost limited to one-half of what we were when the Ordinance was established, and I presume that we could not muster altogether six hundred strong as an active association now, though there may be some still alive who are not able to take an active part in affairs. We think that is bad as regards the interests of the University and of the kingdom. Then we maintain that the number of ten is altogether out of the question; it is so insufficient to meet the necessity. We put this to the test when we went before the Privy Council some years ago. A deputation from the St. Andrews graduates waited upon Lord De Grey and Ripon, who received them very courteously; in fact, his lordship was with us very largely in the matter, and placed our case before the Privy Council; and it is the fact that at this time, when it was known we were going to make this representation, Dr. Sedgwick received applications from about 130 gentlemen, from different parts of the kingdom,—every one of them a man of some position,—begging that their names might be forwarded to the University for examination, and every one of them saying he did not stand on the question of examination, but was quite prepared to undergo any fair and proper examination if only he might be admitted. At the present time, I believe, there are from 300 to 400 gentlemen in the same position in England. Some of the cases are very hard indeed. They come to me as assessor, thinking that I can assist them. One gentleman will come and tell me he could get an appointment,—he has been practising in a large town all his life, respected by every one,—and he could get an hospital appointment as physician if he had this qualification.

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He has not got it, and, therefore, he cannot get the appointment, and some junior man, who is not so well fitted for the service, walks over his head simply by the possession of a University degree. We are of opinion that ten years of medical practice ought to be considered equivalent in those particular cases to a University education. We think that after a man has been only qualified in medicine and surgery, and has been in practice for ten years, that man, if he likes to rub up for a new examination and go through it, should be admitted for examination without any idea of limit or number.

11,603. Then I understand that the change which you propose is to extend the present system rather than to revert to the old system?—We wish to drop the limitation altogether.

11,604. The limitation to ten?—Yes. We wish that all men who have been registered as qualified in medicine and surgery, and who have been ten years in practice *bond fide*, should be admitted without regard to number, if they choose to pass through the necessary examination. At the same time, we are willing that the members of the examining board should consist of men from different parts of the kingdom, and that the examination should be as stringent as the Medical Council may require; and we think that, now that the examination is under the charge of the Medical Council, there can be no danger of admitting unfit persons, because the Council send down their assessors to watch the proceedings.

11,605. Then, if I understand rightly, you would restore the previous practice, with this difference only, that you would not admit any candidate to examination who had not been ten years in professional practice?—Quite so. That, we think, would meet the difficulty.

11,606. In all other respects, you would restore the practice as it stood before 1863?—Yes, with this difference, which is an important one, that we would be very willing to include amongst the examiners men from London, Edinburgh, Glasgow, or Aberdeen, so as to meet the objection which has been made in evidence in regard to Professor Day, that he had no examiners except those who were under his influence. As to this objection, I should state that I believe Professor Day was as incapable of exercising the undue influence that has been attributed to him as that any of the examiners were capable of submitting to it.

11,607. Then that would be an examining board, one member of which was a professor at St. Andrews, and all the others were strangers?—The Professors of Chemistry and Natural History would be taken from St. Andrews. We would appoint a surgical professor from Edinburgh as one of the examiners.

11,608. But all the examiners in the practical department would come from a distance, with the exception of one?—Yes, with the exception of one.

11,609. It occurs to one why such a board should sit at St. Andrews more than anywhere else?—It might sit in London; it would add greatly to the interests of the University if it did,—but I suppose it could not. That is the very thing we would like.

11,610. *Dr. Muir*.—But why should the privilege of conferring degrees under those circumstances be confined to one University?—We do not wish it to be so confined; we are quite willing that other Universities should do the same.

11,611. They cannot at present confer a degree in the way St. Andrews does.—I think they might, under the same circumstances, have conferred it before 1863.

11,612. *Mr. Froude*.—How has Durham assumed the power to do so?—I do not know.

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11,613. Would they not require to apply to Parliament?—Well, they have advertised it, and I believe some have graduated there.

11,614. *Professor Huxley*.—What is the reason of the great demand for the title of M.D. on the part of gentlemen who have been in practice for ten or twenty years?—To gain appointments to enter upon consulting practice, or to retire altogether,—they like to retire with the title.

11,615. As a general rule, a doctor or a physician is held to be a person who has given special study to some branches of medicine alone, or who has received a special and higher kind of medical education?—Yes.

11,616. And in the public mind that is what is really meant by the title of Doctor?—That is what is meant, I presume.

11,617. Well, then, is it not rather a difficulty that, by such a system of conferring degrees as is at present pursued at St. Andrews, a gentleman acquires that title without having gone through that form of discipline which is supposed to be its correlative?—We think that a man who has passed for the licence of a College of Physicians, and has been ten years in practice, and who then prepares for another examination, does stand in the position of a man who has earned that distinction if he goes through a good examination.

11,618. I understand that is the view of the gentlemen whom you represent, but it is clear it is not the view of those who have had the regulation of medical education, because they tell a young man entering upon a medical career—‘You can either qualify for the lower branches of the profession or for the higher, but if you qualify for the higher, you must spend so much time and money in order to get the high degree?’—Yes.

11,619. Now, under those circumstances, has not the man who has made this sacrifice at the beginning of his career a certain ground of complaint that persons who have not made the same sacrifice should be able to take the like distinction?—We think not. We think it should not be considered detrimental by those who have been more fortunate in early life. There are a great many men who have not been so fortunate in early life as to be able to take a University degree, from some cause or other. I myself should not have been able to progress in medicine at all if I had not gone to St. Andrews. It so happened that I was obliged to follow the custom of being apprenticed to a general practitioner in medicine in England, and had not the opportunity of going through a University course; but I passed through a thoroughly sound medical education, and yet I must have been stopped in my career altogether if this door had not been open to me. I went to St. Andrews, took my degree, and everything was open to me. I could go to the College of Physicians and pass there,—I could take the physicianship of a large public institution,—the whole ground was open to me,—and I see in that no injury to anybody else. And there are hundreds of gentlemen in the same position.

11,620. Would it not be a more fair proceeding to make it a standing regulation of the Universities which grant medical degrees, that the candidate shall, if he likes to pass a second examination, and after a certain period of practice, come up and take his Doctor's degree? Would not that do?—Do you mean at the place where he was educated?

11,621. Yes.—I should say I quite agree with you there.

11,622. That is to say, you think it would be expedient that any University or any examining body should have the power to confer a degree upon any man who, having at one time passed a lower examination, and having been so many years in practice, comes up again for a fresh examination?—Yes.

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11,623. You are not now speaking exclusively in the interest of St. Andrews?—No, we are very catholic in this matter,—only we feel practically the pressure which the other Universities have not felt, owing to our peculiar circumstances.

11,624. Is the examination as at present conducted at the University of St. Andrews a satisfactory one?—I think so.

11,625. Has there not been a report of the Visitors of the General Medical Council that is not quite favourable to it?—The report was not favourable, but I really think they reported as though they were observing students who were just passing their primary examination rather than men who were in practice.

11,626. But, surely, if a man is to have upon him the stamp of a higher degree, he should have that kind of knowledge which entitles him to the higher degree, no matter whether he is a student or anybody else?—Yes. I should be strongly inclined to recommend that that should be enforced in future; but it had not been the custom up to that time. It had been the custom to examine upon the more practical subjects. The men were assumed to have been a long time in practice, and instead of being examined in the higher branches of chemistry and physiology, they were examined upon treatment at the bedside and similar subjects.

11,627. Was there any opportunity of clinical examination?—No; but I mean such questions were put as would bring out the knowledge of the candidates.

11,628. The theoretical questions?—No, practical; but there was no examination at the hospital.

11,629. As matter of fact, there is no hospital at St. Andrews?—No, but there is at Dundee, and both Professor Day and Professor Bell took candidates for honours there to be examined.

11,630. Is it the case that at present your candidates are subjected to any practical clinical examination?—I am not sure whether that has been the case in Professor Pettigrew's time.

11,631. I presume you think it would be important that there should be practical examination in those matters?—I think so.

11,632. Is there any practical examination in anatomy?—I think not,—not from the subject.

11,633. And no necessity to perform operations?—Not surgical operations.

11,634. How long does the examination last?—Three days.

11,635. Is it conducted by questions or by written papers?—By both.

11,636. Under these circumstances the examination falls a good deal short, does it not, of the standard at which all the best examinations are now aimed? Take, for example, the College of Surgeons; as you are aware, there are at present practical examinations in anatomy there?—Yes. The University of St. Andrews has followed the example of the College of Physicians all through its career. Professor Day was a very great admirer of the College of Physicians, and he invariably framed his examination upon theirs. The succeeding professor followed in his steps.

11,637. A witness who has been before us has stated, referring to Edinburgh:—‘The questions were the same average; perhaps there was a little elasticity occasionally with regard to the answers, but certainly the questions were as hard.’ Is there any elasticity in your answers with respect to the College of Physicians?—No, I think not.

11,638. Then I understand you would have no objection to extend this

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system of granting degrees to persons who have been in practice to the whole of the Universities of Scotland?—Not at all.

11,639. If they themselves were inclined to adopt it?—Yes.

11,640. In short, a system such as the University of London pursues, of admitting all persons to examination who have a certain amount of knowledge, should, you think, be adopted for the Scotch Universities?—Yes, with this difference,—that the University of London insists on candidates taking two courses in hospital before it admits them to examination, which, we think, is a fatal objection.

11,641. Do you think that the average run of practice obtained by general practitioners of even ten or fifteen years' standing gives them the sort of opportunities which are afforded by hospital attendance?—I think most of them are engaged in hospital practice. Most of those who apply are, we find, engaged in some way in hospital or dispensary practice.

11,642. Or dispensary practice?—Yes; or as surgeons. They have been in an hospital, and got dispensary practice, or are in large general practice. They have very commonly been surgeons in hospitals, and they want to be physicians.

11,643. Of the 600 or 700 graduates whom you have, is there a large number who have been surgeons in hospitals?—A very considerable number have been surgeons, or are attached to institutions. The institutions alone amount to over sixty, and in some of these there are one or two.

11,644. Still, as matter of fact, I suppose that a very large number of those who seek St. Andrews degrees have been engaged more in general practice for a number of years?—They have.

11,645. And they wish to get the prestige of a doctor's degree to enable them to get into a different kind of practice?—Yes, that is really the practical position of matters.

11,646. *Mr. Campbell Swinton.*—Can you tell us what is the average number of candidates for the degree who have been rejected?—In 1858, when the question of representation in the Council arose, our returns showed that the rejections numbered one in four,—a proportion higher than that of any other examining body, except the University of London, and that though nearly all the rejected candidates were at the same time legally qualified practitioners.

11,647. Does that continue?—I have not the facts with me.

11,648. Do you think that any are ever rejected now?—Yes, there are rejections; and we have people with a grievance on that account.

11,649. As you say there are so many desiring the degree, would there be any evil in having some restriction, and in giving the degree by competition?—We have considered that, and we do not think the degree should be put up to competition, unless you take away the limitation of number altogether, and put it on the examination. If you raise the examination and take away the limitation of number, the limitation would rest on a sound basis.

11,650. But would it not be a very natural way of increasing the value of the degree to give it by competition, with some limitation of the numbers?—I regret that we cannot see our way to a fair system of limitation. There would be a grievance on the part of men who were refused; they would want to know what they had done, and why they should not be admitted.

11,651. Does that not exist in all competitive examinations? The men who are rejected do not ask what they have done; it is just because they are not so good as others?—Yes; but we have nothing to say till we get them under examination. Two men may be living next door to each other in the same town,—rival practitioners,—and it may happen that the

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one is admitted to the degree, and the other is not; and then it becomes the talk of the district why the one man is not admitted, and it is very much against his interests. There are a number of practical difficulties in the way which would be met by the examinational system being improved.

11,652. *Professor Huxley*.—Out of the candidates who have come up during the last ten years, is it the case that as many as ten per cent. have been rejected?—I do not know. I am not able to say what number have been rejected.

11,653. Do you think that the system of selecting men by testimonial for examination is a good one?—No; and I have refused testimonials over and over again.

11,654. Is it not liable to great abuse?—It is. The thing is to put it on an examination to meet this great want,—for it is a want.

11,655. Can you suggest any mode by which the absence of any means of examining practically can be supplied at St. Andrews?—We can examine practically at St. Andrews very well.

11,656. There is no hospital?—We can take the candidates to Dundee.

11,657. Have the University authorities any right to deal with the infirmary at Dundee?—It is permitted. There is no difficulty about it. There are laboratories at St. Andrews, which are available for the microscopical part, the physiological part, and the anatomical part. It could be all conducted perfectly well, and the clinical examination too.

11,658. Is there a medical school at Dundee?—There is no medical school, but there are facilities at St. Andrews for everything of that kind.

11,659. But there is no anatomical school there?—There is a physiological school, and it would be quite easy to have a subject, and to examine from it. Dr. Pettigrew would be very competent for that; and in surgery, if necessary, Dr. Heron Watson could examine practically.

11,660. *The Chairman*.—Under the new system, which has been in operation since 1863, do the greater number of your graduates still come from England?—I think so, and from Ireland.

11,661. Can you tell us what proportion as compared with Scotland?—I do not know, but it must be very large; and it includes many men who have been serving in the army and the navy, and who have not originally taken a degree. There are a considerable number who apply under those circumstances. They write from foreign stations to ask if they can be admitted.

11,662. I see that in 1875–76, being the last year published in the Calendar, one out of the ten is from Scotland, and the other nine are from England. Do you think that is about the usual proportion?—I daresay it is,—one from Scotland, and nine from England and from the services.

11,663. In this case, which is the only one before me, it rather appears there are none from the services. They are designed as resident in certain English towns, with the exception of one gentleman, who is designed as resident in Edinburgh?—Yes. Sometimes they leave the service, and want a degree in order to go into practice; but the majority of them are persons in practice in English towns.

11,664. How many additional examiners have you?—There are four,—Dr. Littlejohn, in *materia medica* and medical jurisprudence; Dr. Balfour, in practice of medicine; Dr. Watson, in surgery; and Dr. Keiller, in midwifery.

11,665. Then the only other examiners are your Professor of Medicine and your Professor of Chemistry?—Yes.

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11,666. Do you think six is a sufficient body of examiners?—I think that if they do their duty, as I believe they do, it is sufficient.

11,667. Who examines in anatomy?—Professor Pettigrew; he is Chandos Professor of Anatomy and Medicine.

11,668. Well, I think we had better proceed to your next point.—My next point relates to the effect of the admission of graduates, duly qualified, with respect to the other Scotch Universities. It has been maintained strongly, I believe, amongst the other Scotch Universities, that the admission to our degree does harm to them, and that it is preventing pupils from going to those Universities. Our experience—and it is very strong on this point—is that the effect is exactly the opposite. It is quite certain that in England, some years ago, the possession of a Scotch degree was not considered a very good thing. Scotch degrees, given as they were, were not thought very greatly of in England. That feeling has been removed to a very large extent now, and, we think, very largely in consequence of the admissions to the St. Andrews degree,—so many having taken the degree. One medical man now does not hold it wrong for another to go down to take the degree; and in that way the degree has risen in estimation throughout England. More than that, we think that the tendency in the minds of those who have passed through the examination at the University of St. Andrews, and have taken the degree, would be to favour the Scotch system of teaching. They go down to the University, and become familiar for the first time with the Scotch University system, and they send their sons and pupils afterwards to a Scotch University, in preference to sending them to the London schools. Our experience is that the more graduates there are from St. Andrews, properly qualified men, the larger will be the number of students who will go to the Scotch Universities.

11,669. You speak of its being suggested or made matter of complaint, that the effect of admitting to graduation at St. Andrews in the way you propose would be to deprive other Scotch Universities of their pupils. In what form have you found that complaint made?—In the University of St. Andrews, we all of us feel that is thought to be the principal difficulty.

11,670. But in what form or way have the other Scotch Universities made that complaint?—I don't know that there has been any formal complaint made, but the expression of it has been conveyed to us many a time.

11,671. In writing?—I don't know that it has been in writing.

11,672. Or in any public form?—That I am not aware of. I am speaking rather of the general sentiment which we have heard expressed by professors of the other Universities, that it is injurious to their teaching.

11,673. Are you aware whether any such complaint was made to the Commission which reported in 1863?—I am not.

11,674. You probably would have found that, if it had been, shown in the report of the Commission?—I am not aware it has been made, but it has been expressed by various professors; I have heard it expressed many times.

11,675. By professors in the Medical Faculties of the other Universities?—Yes. The late Professor Laycock was constantly harping upon that. It was one of his great objections to the present system, that it was ruinous to the Scotch teaching; he thought it was bad that any number of men should come up and pass without having gone through a University education.

11,676. Was that not because it had the effect of deteriorating the reputation of Scotch degrees?—No, I did not hear that.

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11,677. You are surely aware that that complaint was very loudly made before the former Commission?—Yes, I think that complaint was made too, but rather as referring to a past day than to the present system of examination; and that was made against the University of Aberdeen in the same manner in reference to a previous day.

11,678. *Dr. Muir*.—And perhaps one ground of complaint would be, that it prevented English students from coming to study in Scotland, because they could study in England, and then come to Scotland to get their degree?—It might be so; but our experience is that men who have graduated at St. Andrews have become enthusiastic in favour of the Scotch University system. We say that the value of the Scotch University system is becoming better known in England through men of mature mind coming down to take a degree after a good examination.

11,679. *Mr. Campbell Swinton*.—But what part of the Scotch University system do they become enthusiastic about?—Many of them hear for the first time what it is, and of the practical character of the Scotch work, and so they come to know about the system.

11,680. With the exception of what has been the custom at St. Andrews, is it not a distinguishing feature of the Scotch University system, that graduation and teaching go hand in hand? Is that not the great distinguishing characteristic of Scotch University education?—It is.

11,681. Then they do not become enthusiastic admirers of that?—No; but they become attached to the Scotch school, and feel as if they belonged to it. I have no hesitation in saying that it has had a good effect upon the Scotch Universities.

11,682. *Professor Huxley*.—But it could hardly lead gentlemen to go to the other Universities of Scotland where the system is so diametrically opposed to that which is pursued at St. Andrews? It may be very good for St. Andrews, but I don't comprehend how it can be good for the others?—Yes, it is. A man has taken his degree at St. Andrews, and he has a pupil, and he will send him probably to Edinburgh to study.

11,683. Not knowing anything whatever of Edinburgh, and never having been there?—In coming to Scotland, and taking his degree, he comes in contact for the first time with the Scotch University system, and becomes interested in it and feels himself a part of it. It does not do the harm which we have heard it does, but acts rather in the opposite direction. I may be wrong in my feeling on the matter, but I think it was a very strong prejudice on the part of the other Scotch Universities, when they conceived that the method of admission to St. Andrews was contrary to the teaching interest of the other Universities. We may perhaps be altogether wrong, but we believe it was one of the great obstacles to our system. We also think that the effect of a mixed examining board in our University is good even as an example to the other Universities of Scotland, because in England it is frequently urged that the professors examined their own students in past days, and that that was a very lax system.

11,684. *The Chairman*.—That is to say, an examination conducted by professors alone?—Yes.

11,685. Have you any further remarks to make?—On the last point I have just to urge our experience as in favour of the system on grounds of public interest. We feel that when a man has been in practice for ten or twelve years, or more than that, and submits himself to a complete rub up, and that upon new subjects, in order to pass an examination like that which we would desire to have at St. Andrews, it is good for the public. A man gets up his anatomy, chemistry, and physiology again;

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he looks up all the new things; and our experience is that they all improve. I have asked the question of many of our graduates, and every one whom I have met with has said that they have greatly benefited by passing through that second ordeal, and that they have found it an advantage to them in practice, and some of them have taken very great pains in regard to it; they have even had teachers down from London, some of them, to prepare them for their examination. They have gone into matters of toxicology and chemistry and anatomy again, and read up recent authorities, and worked hard to pass the examination; and we think that, as matter of teaching, it is good for the public that those men who have had a great deal of practice, and have got up at this period of life to a new standard of learning, as it were, should be admitted to the degree; we cannot but see that it is of use to the general public.

11,686. Does that exhaust what you have to say on the subject of medical graduation?—It does.

11,687. There is just one point in connection with which I should like to ask you a question. You have been a member of the University Court for, I think, six or seven years?—For six years.

11,688. In the course of that time, has the University Court had occasion to elect professors?—Yes, twice—Professor Pettigrew and Professor Knight. There was, however, a short interval during which I was not assessor, the post being filled by Mr. Patrick Anderson. In that interval Dr. Pettigrew was elected, so that one professor only—Professor Knight—has been elected during my term of office.

11,689. In voting for a professor in the University Court, do you allow votes by proxy?—No, I have never seen voting by proxy.

11,690. The votes are given by those who are present at the meeting?—Yes.

11,691. *Mr. Campbell Swinton.*—Do you think that the number of the University Court is adequate or suitable?—I think that the representation of the General Council should be increased.

11,692. To what extent?—By two more assessors; I think that each faculty—Arts, Medicine, and Divinity—should be represented.

11,693. Then, in giving that representation to the General Council, would you prescribe that they must elect a representative from each faculty?—No; I would allow them to select any three they chose, and I think they probably would select one from each faculty.

11,694. *Mr. Froude.*—Is the restoration of this privilege of granting degrees very much desired by the University of St. Andrews itself?—Very much.

11,695. I do not mean by the body you represent, but by the University?—By the University itself.

11,696. On what grounds do you say they wish it?—I think mainly on the grounds I have put forward. Of course it is for the interest of the University too; but, independently of that, they feel it is fulfilling a public need.

11,697. It would be to their pecuniary interest?—It would be to a certain extent. It is not a large pecuniary interest, and I am sure that would be a secondary consideration with them in the matter.

11,698. *The Chairman.*—What is the fee charged?—Fifty guineas; formerly it was twenty-five guineas.

11,699. It would be pretty largely to the interest of the University if you could get back to the number of seventy-five a year?—With a more stringent examination, and with the regulation as to the men having been ten years in practice, we should never get back to seventy-five a year; there would be a considerable number of rejections.

11,700. How many do you think it would come up to?—At first there would be a great rush for admission, because there are so many waiting; but I don't know what it would equalize to ultimately. It would depend very much on what the University of Durham and the other Scotch Universities do. If they admitted candidates on the same basis, we would have but few. The University really does not put this forward as a monetary question at all; it has been said so, but it is not correct.

11,701. *Mr. Campbell Swinton*.—Have the General Council of the University expressed their opinion on the subject?—No. The University Court has petitioned the Privy Council on the subject.

Benjamin W.
Richardson,
M.D.,
London.

Adjourned.

FRIDAY, 22d June 1877—(*Sixty-Seventh Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

THE DUKE OF BUCCLEUCH.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

JAMES ALEXANDER CAMPBELL, Esq.

Professor HODGSON, examined.

11,702. *The Chairman*.—You are Professor of Commercial and Political Economy and Mercantile Law in the University of Edinburgh?—Yes.

Professor
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11,703. When was that chair founded?—Six years ago. The sixth session was completed last April.

11,704. It was founded in 1871?—Yes.

11,705. You are the first professor?—Yes.

11,706. When was your first course?—In the winter of 1871–72. It began in November 1871.

11,707. The chair was founded by the Merchant Company of Edinburgh?—Yes.

11,708. Will you give us the terms of the foundation?—The terms are stated in the memorial of the Merchant Company. The salary is £450 a year, with class fees, an allowance of £24 for prizes, and £50 for class expenses. The appointment is in the hands of the Curators of the University, with the assistance of the Master and Treasurer of the Merchant Company for the time being.

11,709. Is the foundation of the chair in any written document?—Yes; there is a regular agreement between the Senatus and the Merchant Company, but of that I have no copy. There was simply a bond, binding the Merchant Company to pay annually the sums I have mentioned. The principal was, I believe, invested, but in what way I do not know.

11,710. Who is custodian of that agreement?—The secretary of the Senatus, I should imagine. I have never seen it, but it was submitted to the factor for the University at the time, who has a copy, and all was done in the regular order of business.

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11,711. And then the chair was founded by the Senatus, was it not?
—It was accepted by the Senatus.

11,712. In short, it was made a chair in the University by their authority?—By their authority. I may say, though I do not think it affects the business of this inquiry, that there was a difficulty between the Senatus and the Merchant Company in this respect, that the Company were led to believe that an appointment for seven years would be satisfactory to the Senatus. The Senatus objected to an appointment for seven years, because it was entirely at variance with the practice of the University. In the meantime, the Merchant Company, presuming upon their misunderstanding of the views of the Senatus, had obtained a Provisional Order from the Government, of which a seven years' appointment formed a part, and it was considered too late to get that altered.

11,713. That was a Provisional Order to enable them to provide funds for the purpose?—Yes, to enable them to give funds and establish the chair. A kind of compromise was come to, that the first appointment should be for seven years, and that at the end of five years the Merchant Company should have it in their power to recommend the reappointment of the professor for other seven years, or the making of the appointment for life, like those of the other professors. The five years have more than expired,—six years have expired,—and as yet nothing has been done in that respect; but that is a matter entirely personal to the occupant of the chair, and does not affect the chair or class itself, as it is a permanent endowment and a permanent establishment.

11,714. Are you sure that the endowment of the chair is permanent?
—I think I may say I am certain.

11,715. What number of students have you had in your class?—In the course of the six years, the number of students has amounted to above 300. I have here the numbers, session by session. During the first two sessions, some of the Merchant Company directors and members received free tickets, as did also some of my own personal friends, whom I could not consider as regular students. In the first session there were 51 students; in the second, 67.

11,716. Do these include the free tickets?—They include all. In the third session, 62; in the fourth, 53; then the number, from some cause which I cannot explain, fell off to 25, and last year it rose again to 48.

11,717. That seems a very striking fluctuation?—Yes. I cannot at all explain why the number fell off in the fifth session; but, in consequence, probably, of that fall, the hour was altered from nine in the morning to five in the afternoon, and that change seems to be advantageous, as it appears to suit the convenience of a larger number of persons. The memorandum of the Merchant Company sets out, that, in regard to that large class of persons engaged in offices during the day, for whom this class is in great measure intended, it is necessary to have an hour either before or after business hours,—that is, from nine to ten, or from five to six. From nine to ten is not found convenient for many, because bank and insurance office clerks, especially the younger ones, often require to be at their post by half-past nine; and, as regards the afternoon, though the banks nominally close at four, they do not dismiss their clerks till nearly five, and the hour between four and five would not suit. Up to the present time, there has been no class in the University, so far as I am aware, beyond the hour between four and five.

11,718. But, during last winter, your class has met between the hours of five and six?—Yes.

11,719. And, whether in consequence of that change or not, at all

events the number did rise from 25 to 48, being nearly double?—
Yes.

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11,720. Will you state, in a general way, the subjects upon which you lecture?—The chair is three-fold in its nature. There is political economy—pure economics; there is commercial economy, commerce, the history, details, practice, and mechanism of commerce; and there is mercantile law. It is with regard to the first of these—economics pure—that I at least individually am most concerned, so far as the general run of students goes. Economics such as were taught by Adam Smith, and by his predecessor Hutchison, and such as are known by the title of Political Economy,—that subject, as the memorial states, has always formed a part of the moral philosophy class in the Scotch Universities, without exception. The Professors of Moral Philosophy, such as Dr. Cook at St. Andrews, and many others I could mention, have more or less regularly and practically treated economics as part of their ethical course. Since the foundation of this chair, the attendance upon the class being entirely voluntary, the subject has been at a disadvantage, because the great mass of the Arts students have their time abundantly occupied with other subjects; and, being as a rule not very rich, and not indifferent to the amount of the expenditure they have to undergo, they have no wish to add a class to the burden which is already laid upon them. That is stated clearly in the memorial.

11,721. Your class fee is three guineas?—Yes. For those who do not attend any other class, the matriculation fee of £1 is felt to be rather oppressive, as it adds nearly 33 per cent. to the cost, and raises it to £4, 3s. As about 75 per cent. of the persons attending this class attend no other, that makes a very considerable difference; and I have no doubt that, if there were no matriculation fee as a bar at entrance, or if the matriculation fee, as is, I believe, the case in Owens College, Manchester, were reduced to 5s., there would be a great increase in the attendance.

11,722. But if such a reduction were made in regard to your class, I am afraid a corresponding reduction would require to be made in regard to students attending some other classes?—I should think so. No exception could be made in that respect for a single class. Such classes as form no necessary part of the curriculum of Arts, or of any other faculty, might be excepted. There is a large class of persons in Edinburgh who do not attend any systematic course of instruction. They are here for a few winters, and, wishing to spend an hour or so in an improving way, they attend this or that class. For instance, since the chair of Geology was established, a number have attended that class and no other; and the same with regard to Education, and even Sanskrit, though the number there is small.

11,723. Would you give to those students who are exempted from paying the ordinary matriculation fee the privileges which matriculated students enjoy?—Certainly not. In Owens College there is, I believe, a distinction drawn between those who simply attend a single special class and those who intend to go through the curriculum (say) of Arts. The Arts students pay the full matriculation fee, and go through the full curriculum. Those who do not wish to go through that, or any other curriculum, may take whatever separate class they like, paying a small entrance fee for it. I may take the opportunity of saying that there are two distinct sets of persons for whom this class is provided. The one set consists of those who are engaged in business, and who are not to be considered as College students at all, and do not go through any curriculum. The other set consists of regular students, mostly of the Faculty

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of Arts, who might be expected to take this as part of their regular curriculum if it were so considered and so arranged. Now the difficulty is to get any arrangement which will suit those two classes, because their positions are different and their requirements are different. It is the former class—those who are engaged in business—that are affected by the matriculation fee, while the regular students of the Arts Faculty are not so affected.

11,724. At present this class is not only not compulsory as part of the curriculum for the degree in Arts, but it counts for nothing as a qualification?—It absolutely counts for nothing.

11,725. It would make a great difference in the position of your chair if the subject of political economy were made to count in the curriculum as an optional subject?—Even as an optional subject, it would.

11,726. Supposing that to be done, would there then be the same hardship in requiring the students to matriculate in the ordinary way?—That would not affect the class concerned, because they do not aim at either the M.A. or any other degree.

11,727. And the only effect of that change would be to send more of the intending graduates to your class?—Exactly so. But the point that weighs most with me personally—and I do not speak for my own individual interest, but as regards the subject of the chair—is this. It seems to me a very unfortunate thing that this movement, which was intended to place the subject in a better position than before, should actually have placed it in a worse position; and it is very distressing that young men should be able to acquire the M.A. degree in utter ignorance of the whole class of subjects with which Adam Smith has associated Scotland, and which he did so much to promote. I believe that at this moment society is being honeycombed, both in the upper and lower classes, by anti-economic principles. I find Mr. Ruskin, whose ravings find a large audience amongst us, both male and female, saying in the June number of *Fors Clavigera*: ‘Modern usury is new, and the abolition of usury laws, but the law of Fors as old as Sinai. Modern divinity, with—not so much as a lump of gold—but a clot of mud for its god, is new, but the theology of Fors as old as Abraham. And, generally, the modern Ten Commandments are new: “Thou shalt have any other god but me. Thou shalt worship every beastly imagination on earth and under it. Thou shalt take the name of the Lord in vain, to mock the poor; for the Lord will hold him guiltless who rebukes and gives not. Thou shalt remember the Sabbath day, to keep it profane. Thou shalt dishonour thy father and thy mother. Thou shalt kill, and kill by the million, with all thy might, and mind, and wealth spent in machinery for multifold killing. Thou shalt look on every woman to lust after her. Thou shalt steal, and steal from morning till evening—the evil from the good, and the rich from the poor. Thou shalt live by continual lying in million-fold sheets of lies; and covet thy neighbour’s house, and country, and wealth, and fame, and everything that is his.” And, finally, by word of the devil, in short summary, through Adam Smith: “A new commandment give I unto you, That ye hate one another.”’ That is one of many similar passages which have appeared in *Fors Clavigera* during the last few months. Then I see there was a meeting held lately in London, and a lecture was delivered to working men on ‘Economics from the Working Man’s Point of View;’ and I find one gentleman advocating the restriction of production in order that more money might be earned. Opinions like that, I need hardly say, are fraught with very serious danger. Another gentleman, Mr. Haslam, denounced political economy for treating the workman as a machine, and said: ‘Workmen would ask,

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when they got wiser, how it was that shoes and clothing were stored away useless in warehouses, while thousands were without them.' He does not in the least see the importance of making a provision for the needs of the future; and he contrasts that provision for the want of the future with the destitution of the present, as if the one were the cause of the other. And, again, the Rev. W. Headlam,—and this I wish to call attention to, because the clergy of all denominations are now, I am glad to say, devoting themselves, perhaps more than they ever did at any former time, to an interest in the affairs of this life, and to the improvement of the condition of society; and it is of the utmost importance that their opinions should be somewhat rational and scientific,—this gentleman says: 'Certainly, political economy was a most fearfully dismal science, and he could not wonder that workmen were disgusted with it.' These are sentiments all tending in the same direction,—to the upturning of the very foundations of society. I would say, in one sentence, that whatever one's position in society may be,—whether he lives by wages, profits, interest, or rent,—he has certain economic and financial relations from which he cannot shake himself free, and which it is of the utmost importance to himself and society at large that he should understand. It therefore seems to me that every student of Arts should have some knowledge of the fundamental principles of this subject, which is not at all a difficult thing to attain. It is not necessary a student should have a whole winter's course of five lectures a week. Two lectures a week would be quite sufficient for this main branch, or rather root, of the subject, which is the most important for men of all ranks; and I may say, as matter of fact, that the Senatus, with the approval of the University Court, have passed a resolution entitling the students of the moral philosophy class, either present or past, to attend two days a week, or five days a fortnight, at the reduced fee of two guineas. That is a step in the direction which I desire, though it does not to my mind go far enough, because it still leaves the subject entirely optional, and, as your lordship said just now, does not in the least confer any title to a diploma or distinction of any kind.

11,728. As regards those students who may attend two lectures a week, or five lectures a fortnight, would they attend your ordinary lectures?—Yes, exactly so.

11,729. Would there not be an awkwardness about that, in their getting a lecture now and then out of a systematic course?—The answer to that is, that I have found it necessary, for other reasons, to divide the course into two parts,—the one on Monday and Thursday, and the other on Tuesday and Friday. On Monday and Thursday I confine myself to economic doctrine pure and simple, and on Tuesday and Friday I have its applications,—the history and mechanism of commerce, the doctrine of exchanges, and so on. It is the former I wish the Arts students particularly to attend. I should add that every second Wednesday I devote to the criticism of essays prescribed once a fortnight, while the alternate Wednesday is devoted to some subject of passing interest, such as the revenue returns, railway dividends, the Suez Canal, or something else attracting attention at the moment. Now the question really comes to be, whether it is desirable that this subject should be made in any way a constituent part of the curriculum of the Arts Faculty. I am quite aware that the Arts Faculty is considerably burdened even now, and I do not think there is any subject at present in it which ought not to be in it. I would even go further, and say, that natural history should be introduced, if only as a kind of equipoise to the natural philosophy, as it is called. It seems to me that the Arts

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Faculty is defective in that respect, as well as what more immediately concerns myself.

11,730. But if all the classes in the Arts Faculty were made compulsory, would you not weight the student too much?—That is possible. I see the difficulty. I do not disguise it; and I do not come with a cut-and-dried proposal that will solve every difficulty, and I do not wish to be regarded as simply contending for my own right hand, as it were.

11,731. Of how many lectures does your course consist?—Of, say, 110 lectures; that is to say, I have 110 during the session, allowing for the examinations, which are more interspersed with the lectures than appointed for separate days. Then every second Wednesday is devoted to the criticism of essays, so that these would be deducted from the number of lectures.

11,732. You count them in the 110?—Yes.

11,733. That is just about the usual number?—Yes. I have missed only two days in the six years.

11,734. Is there anything further that you would like to suggest?—I do not think there is. The two points are,—the matriculation fee as regards students who are not regular students of the University, and the recognition, in some form or other, of this subject as a constituent part of the curriculum for the Arts degree. These are the two points on which I am most urgent.

11,735. *Mr. Campbell.*—Are the two classes of students treated exactly in the same way in the class at present?—Yes; there is no distinction made in their treatment.

11,736. They both write exercises, and submit to examination?—Yes; but I should say that the exercises are voluntary. I have no power to compel the production of essays; and, out of the 48 students I had last winter, there were from 24 down to 14 who wrote essays.

11,737. *The Chairman.*—I suppose you have been expressing the views of those members of the Merchant Company who take an interest in this matter, as well as your own?—I think so; but perhaps they are as a rule more interested in the commercial department of the subject than in the economic, while to my mind it is the economic part that is the most vital, and that, in fact, which really gives interest and importance to the other. I do not look upon the subject as a mere bread-and-butter qualification for the counting-house; I look upon it as an education, a mental development, a training; and therefore I do not class it with even such a subject as geology, important as that is, because I draw a distinction between mere knowledge, however useful or interesting, and knowledge which influences conduct in individual and social life.

11,738. *Dr. Muir.*—I suppose you have given no free tickets after the first season?—I have occasionally given free tickets. I have no power to reduce the fee, and I do not wish to do so, but I have occasionally given free tickets to persons who, I was informed, were unable to pay.

11,739. But not in any considerable number?—No.

11,740. *Mr. Campbell Swinton.*—Does the Professor of Moral Philosophy lecture upon political economy?—No; he has given it up entirely, because he considered he would be encroaching upon my province; but until my appointment he insisted on his right to give lectures, and during the winter previous to my appointment he lectured twice a week, at a separate charge of two guineas, to those of his students who chose to attend.

Mr. DONALD MACPHAIL, M.B., C.M., examined.

Donald
Macphail,
M.B., C.M.,
Glasgow.

11,741. *The Chairman.*—You are a Vice-President of the Glasgow University Medico-Chirurgical Society?—Yes.

11,742. You are a graduate in medicine?—Yes.

11,743. This last year?—In May last.

11,744. You took the degrees of M.B. and C.M.?—Yes.

11,745. After a full curriculum in Glasgow?—I took a five years' curriculum in Glasgow.

11,746. Of course you take a good deal of interest in the curriculum of medical study, and you can give us your views about the existing curriculum, and whether you think it is susceptible of improvement? We shall be glad to hear what you have to say on that subject?—Considering the number of subjects, we think the curriculum is too short, and, as it is, in the later years the classes are far too crowded. Still, we would prefer to lengthen the curriculum, by adding to the beginning rather than to the end of it, as students are very apt to hurry over and neglect the beginning,—that is, the scientific part of the course,—to get on to the professional part. While holding that justice cannot be done to the course in four years, we would be sorry to insist on a five years' curriculum, on the score mainly of expense, it being an object with some to be as short a time at college as possible. Even at present, the majority of students, perhaps, take five years.

11,747. Then you think that more time should be bestowed upon the scientific classes?—Yes.

11,748. Is that by the introduction of new subjects, or by giving more time to the present subjects?—Partly by the one and partly by the other.

11,749. What new subjects would you introduce?—I would introduce physics.

11,750. Do you mean experimental physics?—Yes; light, heat, electricity, and so on. We think it desirable to have the scientific subjects over before beginning the professional subjects, as the two classes of subjects interfere a good deal with each other.

11,751. You would have the scientific subjects exhausted before a man was allowed to begin his professional ones?—Mainly. At present, while attending to surgery, materia medica, and the practice of physic classes, as well as the hospital,—that is, during the third winter session,—they have to keep up their work in anatomy, physiology, and zoology; and in their second winter session, while attending anatomy, physiology, and surgery, and the hospital, they have to be keeping up their knowledge of chemistry and botany.

11,752. That last seems to be a mixture?—Yes, it is in the second session it is found to work worst.

11,753. But I think the third session hardly presents the same difficulty?—Not so much; but still, when they are attending surgery, materia medica, practice of physic, and the hospital, it gives them enough to do, and they have at the same time to keep up advanced anatomy, which is rather complicated, physiology, and zoology.

11,754. Have you got any scheme for carrying out your idea?—We would make the full curriculum one of five years. In the first winter the classes would be chemistry, including laboratory work, elementary anatomy, or else a class of biology,—something wider than the present class of zoology,—and a course of physics, related to what I have spoken of, including optics, acoustics, heat, and electricity. These are all purely

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scientific. In the first summer, botany, organic chemistry, and a class of zoology for those who have not had the winter class of biology. Then I would suggest that this winter might be considered as preparatory; and any man who could pass an examination in chemistry, botany, physics, and perhaps zoology, as part of his preliminary, should be exempted from the first examination, and not required to attend the first winter course, so as to make it a four years' course by passing this examination. The second winter would comprise anatomy and physiology alone. Second summer, practical anatomy, practical physiology, and zoology, if it has not been already passed. The second examination to be held in October, and to include anatomy, physiology, and perhaps zoology, which would complete the scientific part of the course. In the third winter would begin the professional studies proper, with surgery, pathology, and materia medica; and at the end of that would come the third examination, comprising pathology and materia medica. As regards hospital attendance, we think it should begin in the second winter by mere hospital attendance, and no more,—not to enrol in clinical classes; and clinical surgery should begin in the third winter, with clinical medicine in the fourth and fifth. The third summer would include operative surgery and lectures on special subjects, such as hygiene, these lectures not being imperative for the degree. Fourth winter, surgery, medicine, and midwifery. The hospital practice would continue from the time it begins right on to the end of the course. Fourth summer, lectures on mental diseases and practical midwifery. At present, students are allowed to take practical midwifery when they please, and we think that is not desirable,—they should have attended the class before they attend the cases. Fifth winter, practice of medicine and forensic medicine; and at the end of that the fourth examination, including surgery, practice of medicine, midwifery, and forensic medicine; and we would suggest that operative surgery should be made compulsory, which at present it is not.

11,755. With a view to this scheme, have you any suggestions to make as regards chairs?—We would like to see a chair of Pathology instituted.

11,756. You have not that in Glasgow?—No, the classes are extra-mural. Then there should be lectureships on State medicine and mental diseases.

11,757. When you speak of mental diseases and State medicine, do you propose to make these compulsory?—No. There is a class at present on diseases of the eye, which is not compulsory, but is taken by many of the students.

11,758. Who is the lecturer on eye diseases?—Dr. Reid.

11,759. *Mr. Campbell.*—Is he the successor of Dr. Mackenzie?—Not the immediate successor; Dr. Rainy intervened.

11,760. *The Chairman.*—Have you any more branches to suggest?—No more; but, with regard to materia medica, we think that at least fifty lectures of the course should be devoted to therapeutics, and not to the mere classification of drugs.

11,761. That is to say, not to pharmacy?—Yes.

11,762. Do you think that lectures on pharmacy are of much use?—I do not think they are at all of use.

11,763. Would not you learn pharmacy in an apothecary's shop?—There is a summer class of practical pharmacy, which is much better, but it is not compulsory.

11,764. In short, the chair called *Materia Medica* ought to be chiefly a chair of Therapeutics?—Yes. Then, of the lectures on midwifery, at least fifty should be devoted to the diseases of women and children.

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11,765. You mean, instead of being upon obstetrics proper?—Yes. A good part of the course is taken up with the anatomical and physiological branch of the subject, which students are supposed to be pretty well acquainted with before they go to the class.

11,766. Is there anything else you have to say?—In regard to the preliminary scientific course which has been suggested for medical students, we think it would be well to have some such degree as B.Sc. in Biology, the holder of which would be exempt from the preliminary and from the first professional examination.

11,767. That is to say, if he took that degree, he would be exempt from two examinations?—From the preliminary and the first professional, and from the first winter.

11,768. And his curriculum would be a four years' one?—Yes. The subjects for this degree might be Latin, perhaps English literature, mathematics, logic, botany, zoology or biology, chemistry, and elementary physics.

11,769. But the result of your scheme is, I think, that most students would require to spend five years?—No; with regard to that, we suggest that for chemistry, botany, and zoology, you should not insist on the student attending the University course, because these are pretty well taught in some of the better schools, and I know that a good many of the men would be quite able to pass an examination at the time they come to college.

11,770. Then you would allow them to pass this examination without attending a University class?—Yes, a great many of them would do so, and it would be a great convenience to them.

11,771. And after they came up, four years would be all that was required for the remainder of the curriculum?—Yes.

11,772. But at present a student who requires to attend University classes in chemistry, and so on, does complete his curriculum in four years?—It can be done, but it is very hard work; it is far too hard work.

11,773. In short, you think it is too hurried?—Yes, for a man to do justice to all the subjects.

11,774. In the opinions you have given us, I suppose you have been stating not your own opinions only, but those of many of your contemporaries?—We have discussed the subjects frequently in the Society, and I have got most of those opinions from the minute-books of the Society.

11,775. Then you have been giving us a good deal the sentiments of the Society?—Yes; which Society, I think, represents the sentiments of the medical students.

11,776. And that Society consists entirely of young men who have recently taken their degree, or are about to take it?—Of senior students and young medical men.

11,777. *Mr. Campbell Swinton.*—And the opinions of the Society are pretty unanimous?—Yes.

11,778. *The Chairman.*—I think you have some suggestions about tutorial scholarships?—Yes, we think it would be a very good thing to have tutorial scholarships.

11,779. Will you explain exactly what you mean by that?—A post somewhat analogous to that of assistant professor, to be open to competition,—the men to be chosen mainly on account of merit. They would take part in experimental and laboratory work, and assist in tutorial work, as exists in some of the classes at present.

11,780. To what chairs would you attach these?—To all the medical chairs,—at least, to all the winter classes.

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11,781. What particular advantage do you expect from that, as distinguished from assistants in the ordinary sense?—These men would have more time for carrying on experiments than the professors have, and would be better able to do it than the students are. They would be able to devote their attention to one subject for a time, and have full advantage of the laboratories.

11,782. Do you mean that those tutorial scholars, or whatever you may call them, are to be in addition to the assistants to the professors?—No; I think they would take the place of the assistants.

11,783. Then in what respect would they be superior to the present assistants?—I am not aware they would be superior, except that they would be appointed by merit.

11,784. In short, you would make the attainment of the scholarship the condition of their teaching?—Yes.

11,785. And make the burden of teaching attach to the scholarship?—Yes, because those tutorial classes are useful in all the branches.

11,786. *Dr. Muir.*—Would any modification of the existing course in natural philosophy be required to serve the purpose you indicated regarding physics?—As the natural philosophy class is conducted at present, it is far too abstruse for that purpose.

11,787. *The Chairman.*—You would require a special course for medical students, to carry out your view?—Yes.

11,788. *Dr. Muir.*—How would that be obtained?—There is a special course held just now. Sir William Thomson or his assistant does hold a special course for medical students, and it is one of the optional subjects in the preliminary.

11,789. Perhaps you are aware that Professor Tait here does the same?—I have heard so; but we would like to see that made compulsory.

11,790. *Mr. Campbell.*—Those tutorships you speak of would have salaries attached to them?—Yes, to enable men to keep up their connection with the University for a short time after they took their degree.

11,791. *The Chairman.*—You would require some endowment for that?—There has been one founded this last session in connection with the chair of Physiology.

11,792. *Dr. Muir.*—Would you have them tenable for any particular period?—I do not think it would be desirable to fix any period. I do not think they would be held for more than a few years by any man.

11,793. *The Chairman.*—What amount of remuneration do you contemplate?—It would need at least £100 or £120 a year.

11,794. *Mr. Campbell.*—If they were competitive, would there not be a risk of getting excellent students, but men not qualified to teach?—There would be that risk; but we would give the professor some say about the election of them, so that they should not altogether be given to the men who have done best in the examination.

11,795. *The Chairman.*—It would be awkward if the professor objected to the most distinguished man in the examination?—The same thing is done even now. The clinical assistants at the hospital are supposed to be chosen mainly by merit; but it is not always the man who does best in the examination who gets the post.

11,796. That is to say, there are other qualifications taken into view?—I think they choose so many of the best men, and submit the list to the professor to choose from.

11,797. *Mr. Campbell.*—Would you confine the candidates to students of the University?—Yes, I think that would be desirable; it would be a sort of reward to the students.

Adjourned.

FRIDAY, 13th July 1877—(Sixty-Eighth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

DR. JOHN MUIR.

JAMES ALEXANDER CAMPBELL, Esq.

Rev. Professor STEWART, D.D., examined.

11,798. *The Chairman.*—You are, I believe, Professor of Biblical Criticism in Glasgow University?—I am.

11,799. And were appointed in 1873?—I was.

11,800. You were recently appointed clerk to the Senate, in succession to Professor Weir?—I was.

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11,801. As I understand, you have some suggestions to make in regard to the curriculum for the Master of Arts degree. We shall be glad to hear your views on that subject?—The requisition for return No. III. mixed up two things,—the case of the students under the old regulations, and that of the students under the new regulations. I have made separate returns for the two cases. In making up the return for the latter I had to tabulate the whole of the Arts students from the year 1861 down to 1874–75, and to indicate the classes which each had taken, so as to bring out how many of them had completed the course. In the course of that investigation I found not only what the Commissioners had required, but a good many other interesting facts, which have some bearing on the question of the degree. The tables* are arranged in fourteen sets, one for each year, and exhibiting the classes in Arts attended throughout their course by the first-year students of that year. In the left-hand series of columns you have the name of the student and the matriculation number for each year that he has attended, taken from the matriculation album. In the set of columns on the right hand, you have the same number of years repeated, and in each year the classes which the student attended, the notation adopted being 1 for Latin, 2 for Greek, 3 for logic, 4 for moral philosophy, 5 for natural philosophy, 6 for mathematics, and 7 for English literature. By that means we get at a single glance the whole work that a student has done in the Arts course. When the figures are 1¹ it means junior Latin, and 1² means senior Latin; a similar notation is employed in the case of Greek and mathematics. When C occurs in any column above the figures representing the classes, it denotes that in the year marked at the top of the column the student took his certificate for classics; P, that he took the certificate in philosophy; M, the certificate in mathematics. After the figures occurs in many cases an upright line,—that indicates the date of graduation. When in any case the letters C, P, or M are underlined, that means that the student passed at the November examination for degrees, and not in April; without the underlining it means that he passed in April. By this means we get the history of the whole of the students who were in the Arts classes at that time. Afterwards I proceeded to select from the whole those who had taken the degree, and those who had completed the course without taking the degree; and, in

* These tables are not printed. The results shown by them are explained in Professor Stewart's evidence.

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order to exhibit the course taken by the former, I have shown it in the supplementary sheets. The figures in the sheet before the chairman show the manner in which those have taken the course who completed it in three years. The other sheets show the same thing in regard to those who completed it in four, five, and six years. I have tabulated in these sheets the course of 3835 students, showing what each has done. Of these, 605 completed the course; of the 605, 383 graduated, and 222 completed the course without graduating. Some intention of endeavouring to obtain the degree seems to have been entertained by 171 out of the 222, for 80 have taken a certificate in one or other of the departments, and 91 have taken certificates in two out of the three departments. The detailed figures are as follows:—Classics, 24; philosophy, 39; mathematics, 17; classics and philosophy, 36; philosophy and mathematics, 48; classics and mathematics, 7. Here it is evident that the last combination—classics and mathematics—rarely occurs; in other words, that philosophy is seldom a barrier to a student obtaining his degree. The remaining 84, each of whom obtained two certificates, appear at first sight to have devoted themselves in nearly equal proportions to the other two combinations; for while 36 have passed in classics and philosophy, 48 have obtained certificates in philosophy and mathematics. But when we examine these figures according to periods some curious phenomena emerge. I have made a table here, from which it appears that of entrants from 1861–62 to 1867–68 there were 1961, and of these 300 completed their course and 215 graduated, leaving 85 non-graduates. Of these 85, 25 took one certificate, viz. 8 for classics, 11 for philosophy, and 6 for mathematics, and 43 took two. Not one candidate obtained certificates for classics and philosophy during that period, but 42 passed in philosophy and mathematics, and 1 in classics and mathematics,—showing that among the students who entered college from 1861 to 1867, classics seems to have been the stumbling-block in the way of their taking their degree. During the three years from 1868–69 to 1870–71, out of 761 entrants, 158 completed the course, and 99 graduated, leaving 59 non-graduates. Of these 59, 32 took one certificate, viz. 8 in classics, 17 in philosophy, and 7 in mathematics, and 11 obtained two certificates. The curious point is that here the whole of these 11 passed in classics and philosophy, while none passed in philosophy and mathematics, and none in classics and mathematics—just the reverse case from what we see in the previous seven years. During the remaining four years from 1871–72 to 1874–75, out of 1113 entrants, 149 completed the course, of whom 71 graduated, leaving 78 non-graduates. Of these non-graduates, 60 obtained departmental certificates, 23 taking one, and 37 taking two. Classics and philosophy were taken by 25, philosophy and mathematics by 6, and classics and mathematics by 6. This seems to indicate a preference among one set of students for one branch of study, and a preference among another set for another branch. In the earlier half of the period investigated, classics was the stumbling-block, and in the later, mathematics. I further thought it worth while to investigate how many sessions the men had attended who did not complete their course. Of these there is a large number. I made the investigation for a period of twelve years—from 1861–62 to 1872–73. During that period there were 3122 students who entered the Faculty of Arts. I have arranged them in a table according as they have attended for one, two, or three sessions, and so on. Of the 3122, I find that 1110, or upwards of one-third, attended only for one session, 528 only for two, 412 for three, 476 for four, 454 for five, 126 for six, 13 for seven, 2 for eight, and 1 for nine sessions.

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The graduates were 372 in number, leaving 2750 non-graduates. The attendance of these non-graduates in the several departments I have arranged in a table, according as they have completed a department, or completed two or three, and so on. In regard to this table there are some very singular points. The notation is: Place above the line, the numerator of a fraction as it were, the letter or letters denoting the department or departments attendance in which has been completed, and below the line the letters denoting departments not completed. When you have CM above the line and P below, that means classics and mathematics completed, but P incomplete, and so on, beginning with a fragment of classics, and ending with the whole three departments completed, so far as attendance is concerned. Three departments complete were taken by 199 of the 2750 non-graduates; two complete and one incomplete by 133; one complete and two incomplete by 232; and three incomplete by 365. The last number seems to be a large one, but it is owing to this being the formula under which, I am sorry to say, a great many of the Divinity students come. They are not required by the law of the Church to take English literature, and, consequently, wherever a man leaves English literature, out of the Arts course, he is returned as not having completed the department of mental philosophy. They require to take only one session in Greek, Latin, and mathematics respectively, and they not seldom content themselves with the minimum in the last two subjects. Thus we have a very large number who count as incomplete, and who, by a little exertion on their own part, might have completed the Arts course. So that we have the large number of 929 who took either the whole of the departments or a part of each. They come within a very little of a degree; but, suppose we strike off those who take three years at the University and then end, we have 654 who attend for four years and upwards, and who take a portion of all the departments, and a good many of them the whole of the departments complete, and all without graduating, for it is non-graduates I am speaking of. Of the 3122 students whose course I traced, while 372 obtained the degree, 654 attended for four years, and either came within a very little of completing the course, or completed the course without graduating. These seem to me to be entitled to ask for some academic recognition of their connection with the University. It appears that the students seem to regard the class of English literature as a sort of odd class—a class which they may take at any time. One would naturally expect that they would take it along with logic and moral philosophy, the three constituting the department of mental philosophy; but I find that of the four years' men, of whom there are 101, 37 take it apart from logic and moral philosophy; of the 181 men who take the five years' course, 79 take it apart from logic and moral philosophy in different years; and of the 68 six years' men, 47 do the same, while of these 68 no fewer than 28 took the English literature as the only Arts class of the session. I infer from this that the students regard English literature as a class to some extent separate from the other classes in the mental philosophy department. As to the M.A. degree, looking to the curious vagaries of the students in regard to the departments which form a stumbling-block to them, I am inclined to suggest that some elasticity in the Master of Arts course should be allowed. With a view to this, I would propose that there should be five departments instead of three, arranged after this fashion: 1st, Latin and Greek, as hitherto; 2d, Logic and moral philosophy. Seeing that the students regard English literature as a sort of odd class, I would keep it apart from that branch, and class it in a third

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division along with history. Therefore, 3d, English literature and history; 4th, Natural philosophy and mathematics, as at present; 5th, Chemistry and natural history, or other two classes forming a sort of natural science department. This last is not an innovation, inasmuch as, with the present degree, it is possible for a student to take honours in natural science. The only variation, therefore, would be the introduction of history, and the classing of English literature along with it. The scheme suggested would not increase the number of classes. At present the students have to take ten classes if they do not pass the preliminary examination. Ten should be attended, comprehending at least four departments out of the five I have mentioned. But I would leave the student the option of reducing the number of subjects by taking the classes of Latin, Greek, or mathematics twice. The candidate would be asked to pass in four out of the five departments, letting it be understood, however, that the four departments in which he asks to be examined are four departments in which he has attended. Further, suppose that a candidate should wish to pass in the whole of the five departments, I would allow it; and, seeing that this would be a certain kind of excellence, showing breadth of culture, this might constitute a class of honourable mention, to be placed first on the list of the ordinary degree. Of course, there would be honours in each of the five departments as in the present system. Even under the present system, it seems to me that there ought to be honours in English literature. In regard to the honours in mental philosophy, when a student goes in for honours in that department, the Professor of English literature is thrown out in judging of the student's case, seeing that there are no honours in English literature. As to the English literature class, it is described in the Ordinance as a course, I suppose because the chair was not then instituted. I think it should be placed on a level with the other classes, and styled a class. So much for the M.A. degree. Now, taking into account the large number of students whom I have mentioned already, who come within a little of taking the M.A. degree but don't take it, I would provide for them by reviving the B.A. degree, upon a scheme somewhat akin to that which I have proposed for the M.A. degree—eight classes to be attended, including not less than three out of the five departments of the M.A. degree. Here, again, the subjects may be reduced in number by taking the classes of Latin, Greek, and mathematics twice; and the candidates who pass in four departments, seeing they come nearly on a level with the Masters of Arts, might constitute a class of honourable mention, and to these it might be advisable to give the franchise, but to none of the other Bachelors of Arts. To give the franchise to the latter might discourage the taking of the M.A. degree, which ought to be avoided.

11,802. Will you now favour us with your views on the subject of entrance examinations?—Entrance examinations form a very difficult question; but I think it is quite plain that the University should not appear to come into competition with the schools. At present in the view of the teachers they come into unfair competition with the schools, inasmuch as it is actually cheaper for the citizens of Glasgow to send their boys to college than to keep them at school. Fifteen years ago, I was for a short time one of the classical masters in Glasgow Academy, and at that time each boy under my charge paid £3, 15s. 6d. a quarter, which, taking four quarters in the year, amounts to somewhere about £15 a year for the education of a boy. At the present time the fees are somewhat higher. But, on the other hand, he can go to college and take three classes, which is as much as any man ought to take, for

ten guineas. It thus becomes a matter of saving to the men of Glasgow to send their sons to college, and get them educated as at a higher grammar school.

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11,803. *Dr. Muir*.—Does that consideration operate practically?—I have heard it mentioned. Then another consideration is, that the University gives a certain status to the youths. A boy prefers to have the name of a University student to being merely a pupil at the High School or the Glasgow Academy. To prevent this undue competition, I would propose that no person under the age of sixteen should be admitted to any of the classes included in the curriculum for the M.A. degree, unless he passes an entrance examination in two out of the three subjects—Latin, Greek, and mathematics. It is difficult to deal with those who are above the age of sixteen in the same way. Boys from the country cannot be sent back to their parents with what they regard as a sort of affront, the having been plucked in the entrance examination. Moreover, in the present state of secondary education, parents would have difficulty in the country in finding suitable schools in such cases. Students above sixteen who failed to pass the examination should accordingly, in my opinion, be admitted to the junior classes of Latin, Greek, and mathematics, but should receive no ticket or certificate. What these youths want is training, and training they should have, but not University status or any of the privileges of University students. So soon as they are able to pass the examination, why, then, let them obtain University status. But there is another class of students that need to be provided for, and those tables of mine bring out the need. I find that a good many students, especially students in Law, take in a sort of amateur fashion some of the Arts classes; perhaps they go to logic, perhaps to English literature, or perhaps to two classes, and they get a taste for regular study in some cases, and not seldom there is awakened in their minds a desire to go on and take the degree. I came across not a few cases of that sort in the course of my investigations; and it would be a pity that these men should be barred at the entrance. To provide for their case, I should say that students above the age of nineteen, who may have attended subsequently to that age any of the remaining seven curriculum classes, should be allowed to count their attendance on those classes, provided they pass an entrance examination before entering the classes of Latin, Greek, or mathematics. I fix this age at a different period from the other. I say nineteen instead of sixteen, because, if it were sixteen, men who failed to pass the entrance examination would take advantage of this provision, and flood the higher classes with junior men. But if the age be fixed at nineteen, it will prevent the younger men from going into the higher classes before they are fit for them.

11,804. What alternative examination would you require for these men you last mentioned in regard to classical languages; would you require them to pass an examination the same as that which the students require to pass who take the degree?—Previous to admission to the classes of Latin, Greek, and mathematics, I would require the same entrance examination of them as of any other student.

11,805. And a higher examination afterwards?—For the degree, certainly.

11,806. *The Chairman*.—You would make the entrance examination the same as in the case of those who are examined when they first go to college?—Yes.

11,807. You have mentioned the subject of history in connection with the curriculum of Arts; do you contemplate the foundation of a chair for that subject?—Yes.

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11,808. You would make that suggestion under the sixth head?—Yes. I have also to bring before the Commission a petition which was sent in by some law students to the Senate in the course of last winter, and which the Senate directed me to bring before you, and to urge very strongly on the Commission the necessity of the institution of chairs of Public Law and Constitutional Law and History. A great many law students in Glasgow have no opportunity of taking the whole of their law course in Glasgow, there being no Professor of Public Law; and, seeing that those subjects are required for LL.B. and B.L., students are under the necessity of going through to Edinburgh. The Senate, in answer to the petition, appointed Professor Lorimer lecturer on public law for this summer, and he had a class of forty-nine students. Since that time I have had a letter from two of the students in that class, representing the whole class, in which they ask for a lecturer to be appointed for next summer, to deliver lectures on constitutional law and history; so that in connection with this I have to make the suggestion that a chair of History should be instituted.

11,809. *Dr. Muir*.—Would the summer lectures be considered sufficient for the degree that these gentlemen look forward to?—Yes, the lecturer being appointed by the Senate. My idea in regard to the chair of History was, that the lectures from it should be given in the winter session—not that it should be merely a lectureship, but a regularly constituted chair.

11,810. *The Chairman*.—Is that the only chair you have to suggest as a new one?—Yes.

11,811. Have you any suggestions to make in regard to the provision of assistance for the professors?—I think the assistants to the Professors of Latin, Greek, and Mathematics ought to have a better position than they have at present. They have a considerable amount of work to do, as will appear from the returns. They are appointed by the professor, the appointments being sanctioned by the University Court. I would be inclined to make them not simply assistants to the professors, but I would have them styled assistant professors, and give them a better position—the appointment to lie with the University Court, and not with the professor. Then, in addition to the allowance from the Treasury, I think that, looking to the amount of work they do, they ought to have a proportion of the fees. Into the classes taught by the assistants would be drafted the men who fail to pass the entrance examination. The assistant professors would be, as it were, the masters in the University grammar school.

11,812. What proportion of fees would you assign to them?—Perhaps one-fifth. The professor has his endowment, which amounts to about £290 in the case of those three classes I have mentioned, and the assistants have £100 each from the Treasury. In the Latin class this year the fees amounted to £1500. One-fifth of that would give the assistant £300 *plus* his £100 from the Treasury = £400. By this means the position would be one sought for by men who would remain in it until perhaps they obtained a professorship. As it is, they remain in it only for a very short time, being carried off by a mastership in some grammar school or other, which is a permanent position.

11,813. *Dr. Muir*.—You would assign additional duties to these University grammar school masters, would you?—Yes. I would let them be assistant professors, under the supervision of professors.

11,814. *The Chairman*.—Do you propose to compensate the professors for the loss of part of their fees?—Seeing that the assistants even now do the work, I do not know that the loss is very great.

11,815. *Mr. Campbell.*—Do the professors not supplement the Government allowance?—Yes, I believe that some of them at least do so.

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11,816. So that you would merely propose that the professors' expenditure for the assistants should be given in a different form?—Yes, and to a larger amount. From the returns I observe that Mr. Ramsay gives his assistant £150 in addition to the £100 from the Treasury; but, seeing that the gentleman holds his appointment at the will of Mr. Ramsay, and seeing that it is worth only £250 a year, the result is, that the assistant of last session is about to become a student in the United Presbyterian Hall.

11,817. *Dr. Muir.*—Under the system of entrance examinations you propose, would not the number of students be so reduced that the professor would no longer have the same income?—I don't suppose the plan I have suggested would reduce the number to any great extent.

11,818. *The Chairman.*—Do you think there should be any change in the sessions of the University?—So far as the Arts course is concerned, I should say 'No.' From my own experience as a student in Glasgow University, six months' work at the high pressure at which men have to work is quite long enough. Moreover, it is a mistake to suppose that the men are idle during the long vacation. We have proof that they busy themselves in preparing for the degree examinations in November, which were introduced in 1867 in Glasgow. The following are the statistics for the ten years since that time. In classics 241 men passed in April, and 316 in November, showing that a very large number of men betake themselves to study during the summer months, and work up for their degree. In philosophy the proportion is not so large, the figures being in April 399, in November 100; while in mathematics the proportion is smaller still, 390 in April, and 68 in November. So that the long vacation is not lost, but used to good purpose by the students, especially of classics.

11,819. Do you think that extra-mural teaching ought to be introduced in the Faculty of Arts?—No. I think it is objectionable not simply in the interests of the professors, although they may think it prejudicial, but also in the interests of the students. In these tables I was struck with one fact—namely, that the black line denoting graduation does not occur at the end of a man's course, that in a very large number of cases the date of graduation is separated by an interval from the completion of the course. But seeing that the dark line occurs sometimes two years after a man has completed his course, yet without any examination intermediate, it would not be fair to take all these cases and count them as intervals; for in many cases the student has completed his last departmental examination at the end of his course, and has been reading up evidently for honours. Therefore, to get at the bottom of this matter, I had to take each certificate and ascertain whether the man took the certificate at the close of his attendance on that [department or after an interval. I have made out a series of tables, and arranged them in three groups—classics, philosophy, and mathematics. The column headed 0 means that the man has taken his certificate immediately on the close of his attendance. The column headed $\frac{1}{2}$ contains a list of students, each number denoting a man's name who took the departmental certificate half a year after the close of his attendance; the others denote a year and a half, two years, and more than two years. On the side you will find a summary of the whole, and a second summary as to the passing of the examinations at or after the completion of attendance. I have arranged in one table all those who completed the curriculum in three sessions; I have done

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the like with those who completed it in four, five, and six sessions. The following are the results:—24 completed the course in three sessions; the examination was passed at completion of attendance in classics by 9, in philosophy by 20, in mathematics by 18; and at a later date in classics by 15, in philosophy by 4, and in mathematics by 6. Four years' course, 101 in all; examination passed at completion of attendance in classics by 34, in philosophy by 79, in mathematics by 78; and at a later date in classics by 67, in philosophy by 22, and in mathematics by 28. Five years' course, 179 in all; examination passed at completion of attendance in classics by 53, in philosophy by 139, in mathematics by 152; and at a later date in classics by 126, in philosophy by 40, and in mathematics by 27. Six years' course, 68 in all; examination passed at completion of attendance in classics by 17, in philosophy by 46, in mathematics by 48; and at a later date in classics by 51, in philosophy by 22, and in mathematics by 20. So that of 372 graduates whose course in this respect I have investigated, while only 113 took the certificate in the department of classics at the completion of the corresponding class attendance, no fewer than 259 allowed an interval to elapse; 284 took the certificate in mental philosophy at the close of their attendance, and 88 after an interval; 296 passed in mathematics at the close of their class attendance, and 76 after an interval. The proportion seems to be smaller of those who take the philosophy departmental examination at the later date; but the figures here are somewhat misleading, inasmuch as they cannot take the philosophy certificate until they have passed in English literature; and this class, as I have shown, they regard as a sort of out-of-the-way class, and consequently they have to wait until the English literature class has been attended before they can go in for their examination. In many cases an interval has elapsed between the taking of the departmental certificate and the completion of attendance on logic and moral philosophy; so that here also the examination is passed at a later date than that at which attendance has been completed in the chief classes in the department. In mathematics they seem to go in for their examination more closely on the completion of their attendance. The fact of an interval occurring between the completion of a man's attendance and his taking a departmental certificate, proves that the professors do not coach for the degree. If extra-mural teachers were introduced, they would have no way of getting up their reputation so readily as by becoming coaches for the degree—getting as many of their pupils or students passed as possible. The result would be, that the professor, in self-defence, would also adopt the plan of getting his students passed for the degree. Thus the degree would regulate the teaching, instead of the teaching regulating the degree. In fact, it would end in the overturning of the professorial system, and the introduction of the tutorial. Those are my principal objections to extra-mural teaching. The narrowing of the culture is the main ground on which I object to it.

11,820. You have no doubt, have you, that at present the professors give instruction far beyond what is necessary to pass the examinations?—Oh yes, they do; but the difficulty in regard to the new system would be, that men would pay attention only to what would help them to pass for a degree.

11,821. The five years' course best illustrates what you were endeavouring to explain as to the interval elapsing between the finishing the instruction and taking the certificate?—Yes; though the interval is longest in the case of the six years' men.

11,822. *Dr. Mur.*—You say the entrance examinations which you

propose would not, in your opinion, reduce the number of students in the Arts Faculty. If that should be the case, how would the entrance examination tend to remove the Universities from the position of competitors against the schools, or, in fact, institutions doing the work of schools?—It would keep boys out, if you fix the age at sixteen; and it would take away the sentimental grievance felt by teachers, that the University is competing on unfair terms with the schools. I am not sure that it would in the long run make very much difference in the number of students.

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11,823. Then, as regards the schools, the effect would not be so much practical as sentimental?—Just so.

11,824. Are you satisfied with the standard of attainment to which the University at present brings the generality of students in the department of Arts, or should the standard be raised?—The standard for a degree is, I think, sufficiently high.

11,825. You think that, if the system you propose were introduced, the University would not be still continuing to do the work of the schools, or at least that work which is done in Germany in schools?—So long as our secondary education throughout the country is at the low ebb at which it stands at present, it seems to me that it would be unwise to introduce any severe examination, any more serious bar to the entrance of the University than would be given by such an examination as I propose.

11,826. Supposing we had a higher standard in our secondary schools, do you not think our University system might be altered and brought more into similarity with that of the German?—Yes; provided we had secondary education all over the country, and not simply in great centres like Edinburgh and Glasgow.

11,827. Suppose secondary education were properly provided for, the measures you are now proposing would only, in fact, be provisional?—Nothing more. In that case, the standard of the entrance examination would be raised.

11,828. *The Chairman.*—Have you any observations to make on the mode of electing University officers?—None, except in regard to the election of Chancellor, and of the assessor elected by the General Council. It seems to me that the Ordinance, as it stands at present, presents the possibility at least of a very grave abuse. I have a copy of the Ordinance here, from which it appears that, when a poll is demanded, and voting-papers are issued, they are issued by the registrar of the General Council. Now the time during which he has to issue them is far too little. He must post them with the blanks filled up the next day but one after the poll is demanded. Now, with a Council numbering, as ours does in Glasgow, 2900 names or so, it is too much to expect of any man to fill up forms and address the letters and post them within that short time. That, however, is a mere matter of machinery, which might be put right by some local authority. But when the papers are returned, they are returned to the registrar within twenty-one days; and then, on the expiration of the said twenty-one days, it is provided that the registrar shall, in the presence of the proposer and seconder of each candidate, or of some person to be named by them for the purpose, sum up the votes so returned. But there is no mention that he is not to open the letters previous to that summing up, and the result might be that he, getting all the letters piecemeal, might have examined them and made a majority on whichever side he chose.

11,829. You mean that he is too much trusted?—Yes; more especially as he is not paid for it. Now I think it should not be left in the

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hands of the registrar alone to open all these letters; and I think, moreover, that when the additional labour of electing a Chancellor and his assessor is laid on the registrar, some provision of extra payment should be made for him. It was our registrar who pointed out to me the possibility of grave abuse in such a case, and it is not from any fear of improper conduct on his part that I speak on this subject.

11,830. Have you anything to suggest in regard to the emoluments of the professors?—The only subject that comes close to myself on that point is the subject of the Deanery revenues. The chair of Biblical Criticism is endowed with one-sixth part of the Deanery revenues. It has probably been brought before the Commissioners, that these revenues are liable to constant diminution through the augmentation of stipends.

11,831. How would you propose to remedy that evil?—I have no idea what should be done. It does not press so hard on me now as it did at one time, in consequence of my chair having had an additional endowment of £140 a year given to it within the last twelve months by the Black Bequest, the donor being Mrs. Black, the widow of Dr. Black of the Barony Church.

11,832. What fluctuation or diminution has there been in the revenue from the Deanery in your time?—The income was estimated by the last Commission at £336. In my first year it was £315; in consequence of the low fiars' prices, it has risen this last year to £334; but when the fiars prices are high, our revenues are low, because ministers' stipends are paid out of it, and there is a considerable portion of it a fixed sum. I am unable to give the facts of the case.

11,833. Have you anything to say on the subject of bursaries or such foundations?—Merely to call the attention of the Commissioners to one aspect of the bursaries. Many of the bursaries fall vacant before the expiration of the period, through the absence of the bursar, or one cause or another; and it would be of advantage if some plan could be devised by which the remainder of the sum or period could be utilized, especially for the benefit of the men who are in the second half of their course. At present the most of our bursaries are for first and second years' men. If a man is not well up in his first and second year, he has hardly any chance of a bursary; and men coming up from the country, where the secondary schools are not so good as in Edinburgh or Glasgow, have little chance with lads who have been drilled for years preparatory to the bursary competition. Therefore, if some provision could be made for the men who have been two years at the University, and who have profited by the University training, so that in the third or fourth year they might participate in the bursaries, especially if the lapsed bursaries could be used for that purpose, it would, I think, be advantageous.

11,834. *Dr. Muir.*—What is done with them now?—In some cases a student of the same rank is appointed; but we cannot in all cases do that. It depends on the deeds; and if the deed be stringent, we have to allow them to lie aside until the expiration of the period, so that the bursary is accumulating.

11,835. *Mr. Campbell.*—The accumulation goes to the benefit of that bursary?—Yes.

11,836. *The Chairman.*—But in the meantime it is in abeyance?—Yes.

11,837.—I am afraid that would be diverting the accumulation of a fund or bursary to a different purpose than that to which the bursary was dedicated?—Not if the bursary were assignable only to a student of the same standing as the absentee. If in his regular course the bursar had to enter the moral philosophy class, and were absent, in that case the bursary might be given by competition to a student of that class,

or it might be offered as a prize to the best student not holding a bursary.

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11,838. Is there any other subject on which you would like to give an opinion?—In return No. I. in the Faculty of Theology, it is to be observed that in 1866–67 there is a sudden dropping of the numbers of divinity students from 102 to 86. The figures here are misleading. That was the year in which the Church abolished the partial session. Previously, the divinity course consisted of three complete sessions and a partial session. Since that date, three complete sessions have constituted the divinity course.

11,839. So that that diminished the number of matriculations?—One hundred and two means the entrants of four years, and 86 the entrants of three years; so that in reality there was no diminution, though it appears from the tables as if there had been.

11,840. *Dr. Muir.*—Have you any suggestions to make with regard to the persons by whom the professorships in the Faculty of Divinity might be tenable? Do you think or not that they might be of a pan-Presbyterian character—that is to say, open to members of other Presbyterian Churches besides the Church of Scotland?—If the other bodies of the Presbyterian Church in Scotland had not set up Divinity Halls of their own, the question would have been more easily answered. In my view, they should not have set up separate Divinity Halls, but have striven for the opening up of University chairs to all denominations. But seeing they have set up opposition Halls of their own, so long as these continue, I would be averse to any change.

11,841. Is the standard of culture attained by theological students such as you consider satisfactory at present?—I would prefer to have the whole of them Masters of Arts to begin with. I think the Church ought to make that a *sine quâ non* of entrance to the Divinity Hall.

11,842. The elevation of the standard depends entirely on the Church?—To a great extent. So long as the Church does not demand it, the men who most need a stimulus will be content with the minimum of culture.

Professor JAMES THOMSON, LL.D., examined.

11,843. You are, I believe, a Doctor of Laws of the University of Glasgow?—Yes.

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11,844. You are also a Doctor of Science, are you not?—Yes, of Queen's University in Ireland.

11,845. You are Professor of Civil Engineering and Mechanics in Glasgow University?—I am.

11,846. You desire to make some suggestions with regard to graduation in the Faculty of Arts, and also with regard to graduation in Science, and the institution of entrance examinations. Will you favour us with your views on these subjects?—I have put on paper my views on these subjects, as also on some others of the subjects of inquiry proposed by the Commission; and, if I may be permitted, I will take the liberty of reading them in the order in which they are written. In this way I would propose to take, *first*, the subject of the provision of instruments and apparatus for the Engineering Professorship; *secondly*, the subject of retiring allowances in such cases as my own; and, *thirdly*, the subjects of entrance examinations, graduation in the Faculty of Arts, and graduation in Science. I have first to say that in the Engineering department in Glasgow University there is much need of a

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fund for procuring instruments and apparatus. At present there are no instruments—not even a theodolite or a levelling instrument—belonging to the University in the Engineering department. There are a few pieces of experimental apparatus, and some models of ships. Some of the ship models are useful for illustrating the teaching on shipbuilding. There is also want of furnishings, such as glass presses or cases for holding instruments or apparatus, and improved black-boards for the lecture-room. Such instruments as have been quite essential for the courses of teaching hitherto, I have found it necessary to provide myself, either by purchase or by obtaining them on loan. The establishment, about four years ago, of practical courses of teaching in the Engineering department in Glasgow University, which had been previously a desideratum, has introduced an increased need of various kinds of instruments. In Queen's College, Belfast, where I was formerly Professor of Civil Engineering, there was an annual grant of about £30 for the purchase of instruments and apparatus for the Engineering department. A sum such as £100 or £200, as a commencement for the purchase of instruments and apparatus for the Engineering department in Glasgow University, would be very desirable; and afterwards about £20 or £30 annually. As, however, a single instrument or piece of apparatus would in many cases cost more than such a sum as £20 or £30, and as, further, for the procuring of instruments and apparatus at smaller costs for separate things, the exact annual sum provided could not always be advantageously applied in one year, it would be very desirable to have an arrangement made, under which the fund might be allowed to accumulate for a few years, and might then be applied to the best advantage in suitable sums at a time. Or, instead of an annual sum being allowed to accumulate, I would suggest that perhaps a fund of equivalent amount might be made available at convenient times within each period of five years out of some more general fund for instruments and apparatus for various departments in the University.

On the subject of retiring allowances I have merely to say this: having been in the service of the Crown in another University previously to my appointment by the Crown to my present professorship, I would hope that my time of previous service would be reckoned along with my time here as time of service in respect to retiring allowance. I would also hope that a like mode of reckoning would apply in any like cases of other professors in the Scottish Universities.

In reference to the question of the institution or continuance of entrance examinations, and to regulations for graduation in Arts and for graduation in Science, I would wish to state some views which I entertain. I am of opinion that the institution of any entrance examination of an excluding kind would not be beneficial, but would be injurious to the Engineering department in Glasgow University, and that it would also be injurious to many young men already entered on, or about to enter on, practical business in engineering or architecture outside of the University. I assume that only a small proportion of those who would offer themselves as candidates would be actually rejected by the examiners; but I am sure a great many persons, having entered on practical business, and not being fresh from school training, but who might well profit by the University teaching, would have an exaggerated fear of the ordeal of the entrance examination, and would be deterred absolutely from coming forward at any time to the University. I think it would be a good thing to offer a voluntary examination for candidates whose parents or guardians, or who themselves, may wish to be advised in a friendly way as to whether or not they are well enough prepared for

entering the University at all, or for sufficiently profiting by attendance on particular classes. The offer of an examination of this kind, while very useful to be made, would, I am sure, be accepted by only a few. By far the greater number of intending entrants would be quite satisfied to decide, on their own responsibility, what classes they would take, and to leave the judgments on their success and advancement to be made after rather than before receiving the professor's teaching. The fact of the examination being offered would, however, have a very material influence in enabling the professor to conduct the business of his classes on the assumption of his students being tolerably well prepared to the extent represented by that examination; also, the very great expenditure of time, mental labour, and money involved in a general compulsory entrance examination would be saved. It seems to be very generally admitted that students enter some of our junior classes with very inadequate knowledge and preparation, and that, in consequence of this, the courses of teaching tend to be made too elementary. Opinions are widely prevalent to the effect that some kind of reform is desirable, in order to attain a higher standard of preparatory education than at present in students entering the University. It would be wished by all, I presume, that there should be, as far as possible, an improved development of schools throughout the country, as the schools, with but few exceptions, are judged to be quite inadequate to provide the desirable preparatory education. By some it is strongly urged that a screw or a lever must be applied somewhere to effect a reform in the schools, and that the Universities ought to do this by instituting entrance examinations, such as to exclude from curriculum courses a large proportion of the students who, under present arrangements, do enter. They think that, if only the demand were made at the doors of the University for decidedly higher preparatory education in intending entrants, it would speedily bring about its own supply, and that the schools would develop themselves, or would be developed to much higher conditions than those in which at present they have their being. I am not so sanguine as to think that such would be the case. Some improvement in many of the schools might, doubtless, be effected in that way, or by various other means; but many and great districts would still remain devoid of schools at all adequate to send forth students duly prepared for going directly into University classes, organized on the basis of assuming good preparatory advancement in the student at first entrance into the University. To try to raise schools all over the country adequate in all respects to prepare boys in English, Latin, Greek, and mathematics for passing directly to more advanced junior classes in the University than the most elementary ones at present organized, would, I conceive, be a futile attempt. Instead of this it appears to me that it would be a much more hopeful and more successful plan to provide a good intermediate preparatory school in connection with the University, with its departments under the direction of the corresponding professors, and under the ultimate control of the University authorities. This school should be adapted for filling the gap, or for affording approximate continuity between any good though not much advanced schools and the University; and the arrangements should be made so as, on the one hand, to encourage boys in well-advanced schools to prepare themselves there for going directly into the University curriculum courses; and, on the other hand, to enable boys who, by an entrance examination if instituted, or by various other means of judgment, are found not to be well enough prepared for that, though they may have completed the courses of instruction available at the school they have previously found it convenient to attend,

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to supply their deficiencies by the means provided in the preparatory school. It seems to me unadvisable to send away from the doors of the University the applicants whose preparation may be found defective, without helping them to a well-prepared course, specially adapted as preparatory to the University curriculum courses. The proposed plan would also effect this:—that if a lad were well prepared in Latin, for instance, but not in Greek nor in mathematics, he might at once go forward into a University curriculum course in Latin, while taking mathematics and Greek in the preparatory school. This would be better than that he should be altogether refused admittance to the University, and sent to seek, perhaps in vain, for a suitable and convenient school in which to supply his partial deficiency of preparatory education. This method would, indeed, not differ very widely from the system which has hitherto been developed of having lower junior or very elementary classes taught wholly, or in a great degree, by professors' assistants. On the supposition, however, that the classes in the proposed preparatory school might, in some cases at least, be personally conducted by the same gentlemen who in the corresponding departments may have been selected to assist the professors in their work, the proposed scheme ought, I think, to involve one important change—namely, an increase in the pay, and an improvement in the status or dignity, of the gentlemen giving the early or the preparatory teaching to the students entering, or wishing to enter, the University. Under present arrangements, the inducements offered to the assistants are not such as to lead to their retaining their posts usually for more than very short periods. I find, by reference to the University Calendars, that in the fourteen or fifteen sessions since 1862–63 or 1863–64, there have been six successive assistants to the Professor of Latin, and in the same period six successive assistants to the Professor of Mathematics; so that in each case the average period of service of an assistant has been only about two and a half years. I may mention, too, that under the existing arrangements of the mathematical classes, the first-year class, or lower junior class, in that department, is taught ordinarily, not at all by the professor, but wholly by the assistant; and thus it is virtually only a preparatory school class, conducted by a master who usually does not retain his post long enough to become experienced in the service. I would propose that the preparatory school should be arranged for one, or at most two years' attendance, just before entrance into the University, or partly overlapping occasionally with the period of attendance on some departments in the University, and that thus it should not enter into competition with the elementary teaching given in other schools, and that it need not supersede any adequate teaching otherwise available. It would, however, in a great degree obviate the evil at present existing of the necessity for shifting boys from a country school to advanced classes or courses of teaching in a large town school, and thence again to the University, with the result of their having two breaks in their courses, and changes in their methods of study. It is well known that boys from country schools do not usually assimilate well with those, often younger than themselves, who have been continuously trained from the beginning in the courses of the town school. Their education in that stage is usually found to be a trouble both to themselves and to their teachers. It may be supposed that the suggested new system would seriously diminish the incomes of some professorships that are largely dependent on fees from junior classes. It is to be observed, however, that any entrance examination worthy of the name would have the same result. I presume that no change interfering with rights of existing professors would be made without provision in some

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other way of such compensation as might be found to be suitable and proper. As to the existing regulations relative to the preliminary examination in Arts, and held as applicable also to graduation in Science, in the department of Engineering, I think it is not advisable to restrict, as is at present done, the examination in mathematics to students at the time of their first entrance into the University. If an examination then showing them qualified to enter profitably the senior mathematical class, without taking the junior class at all, is sufficient, it might as well be sufficient at a later date. The passing of an examination such as the mathematical part of the preliminary examination in Arts, and then attending the senior mathematical class, and passing the class examinations, is evidence of much higher advancement in mathematical learning attained in the University of Glasgow than merely passing through the lower and upper junior classes, with their examinations included; and that course of procedure, if allowed to students at their first entrance into the University, ought equally to be allowed to students at other stages. I may mention that this is partly suggested to me by the case of a young lad who entered as an engineering student last winter. His father intended that he should be only one year in attendance at the University, that he should at the same time be attending at the High School of Glasgow, and that he should afterwards go at once into a shipbuilding establishment. However, towards the end of last session the opinion was changed, and both the father and the lad wished that he should remain and complete or continue an engineering course. Now, it is considered that this lad will be abundantly well prepared to enter the senior class of mathematics, but the arrangement that is at present ordained would require his giving two years' attendance on mathematics, or would not allow of his taking only the senior class, owing to the circumstances under which he entered the University, which have led to his being in the position, whatever his mathematical attainments may now be, of having not taken the mathematical part of the preliminary examination in Arts when entering the University for the first time.

11,847. That difficulty occurs with a view of his graduating in Science? —Yes. I do not find, among the regulations for graduation in Science issued in the Calendar, any formal or distinct statement to the effect, nor do I know of any Ordinance to the effect, that for graduation in Engineering Science the required attendance on mathematics for one or two sessions is subject to the same condition in respect to passing or not passing the mathematical part of the preliminary examination in Arts at the time of the student's first entrance into the University, as the attendance on mathematics for the degree of Master of Arts is subject to; but I believe that practically the same condition as to the preliminary examination is made to apply in both cases. Now I do not see that it is profitable to the students or to the public that the restriction of an examination of that kind to the time of the student's first entrance into the University should be maintained in either case. I don't see any good reason why there should be a distinction between passing the examination at their entrance into the University rather than afterwards, for the reasons I have already stated. Taking the senior mathematical class successfully is certainly evidence of higher attainment in mathematics acquired in our University than to take the lower junior class and the upper junior class.

11,848. *Mr. Campbell.*—Do I understand that in this case the student is fit to offer himself for examination, and enter the senior mathematical class, but that if he is to qualify for a degree, he must go through the junior class, because he did not offer himself for the preliminary exa-

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mination when he first came into the University?—Yes, that is supposed to be the case.

11,849. And passing through the junior class would be waste of time for him?—Yes, it seems so. I heard, however, it was likely that, to accomplish two years of attendance, instead of taking one year of the junior class, and one year of the senior, he would take the senior class two years running as a matter of form, and give presence for two years, although it would be in a considerable degree wasting his time to do so. Such cases might occur with many other students. Referring again to the idea of a preparatory school which I have suggested, I might be allowed to mention the preparatory school for University College, London. I have made inquiries in respect to it, and have obtained information. It is a very successful school. It is carried out on a very elaborate method, with a very large number of masters, and has a very large attendance of boys. It is in intimate connection with University College. It is within the same building and under the management of the Senate of the University College. The real distinction between that and the proposal I have made for Glasgow, is that I would not propose that in Glasgow the school should be adapted for little boys, taken at the very beginning, but that it should be an intermediate school, to fit in with various schools of different degrees of advancement, and should be adapted for bringing lads up to the standard that would be suitable for enabling them profitably to enter the classes taught by the professors in the University. In the school I have suggested, I think there might well be four masterhips for Latin, Greek, mathematics, and English.

11,850. Your proposed school would be in direct competition with the High School and Academy, would it not?—I would say, not so; because it would not take boys in the early stages of their education. I know that some boys have come to the High School after having attended school in country places; but they have to contend with this difficulty, that they do not assort well with boys younger in age, and of a different stage of previous preparation. I have said in my proposal that the preparatory school should be adapted only for one or two years' attendance at most, previously to the pupil's going to the University. I would prefer that students should not be refused admittance to the University altogether, supposing entrance examinations to be instituted, but that, if rejected at the entrance examination, they should only be rejected from such classes as previous want of preparation unfitted them for, and that they might go to the preparatory school to learn those subjects, while they attended such classes as they were qualified for. The High School can't do that very well. It is too far away to make it easy for a student to go backwards and forwards daily between it and the University, although that can be done in some cases.

11,851. Your chair has received assistance from Mrs. Black, lately, has it not?—Yes; there is a salary of £140 a year for an assistantship to the Professor of Engineering.

11,852. Have you yet matured your plans for the application of that money?—That bequest was acted upon last winter. Mr. A. Barr was appointed by the University Court on my recommendation. He was lately a student in my own class, and has given great satisfaction.

11,853. That has enabled you to overtake additional departments?—Yes; it enabled me to do what I had previously wished to do, and, what was much wanted, the dividing of the class into senior and junior classes. I may mention that on my first coming to the University of Glasgow, four sessions ago, I proposed the establishment of a prac-

tical class, under the name of Office and Field Work in Engineering. There had been an admitted want of such classes previously. The course has been succeeding well; the students are liking it; and last winter, as it turned out, after the session commenced, it would have been impossible to receive the whole of the class in the class-room at one time, the number of students being too large. The class is now divided into junior and senior classes; the lecture course is also divided into junior and senior lecture courses. The fact of my having this assistance has rendered that practicable which otherwise would scarcely have been practicable, as it would have required too much of my own attendance. The sum from the bequest is likely to be somewhat more than £140, not less. It is called the 'Young Assistantship,' in memory of Mrs. Black's father.

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Glasgow.

Adjourned.

FRIDAY, 2d November 1877—(Sixty-Ninth Day).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

LORD MONCREIFF.

DR. MUIR.

Mr. BENJAMIN F. C. COSTELLOE, examined.

11,854. *The Chairman.*—You are a Master of Arts of the University of Glasgow?—I am.

11,855. And you are the holder of an Eglinton fellowship?—Yes.

11,856. There is some association of Glasgow graduates in whose name you desire to speak, is there not?—It is not exactly an association; it is a number of graduates who signed a memorial and sent it to Mr. Berry. Practically, it includes the majority of graduates of recent years who were applied to on the subject.

11,857. Graduates in Arts?—Yes.

11,858. Then you may be taken as speaking on their behalf?—Exactly—as representing the views of recent graduates and students.

11,859. I understand that the first subject on which you desire to give evidence is with regard to fellowships, scholarships, and bursaries?—It is.

11,860. Will you favour us with your views upon that subject?—In the first place, I think that existing and future endowments would require to be classified. All endowments for which graduation was necessary should be classed as fellowships, and those received on entrance should be classed as bursaries. Intermediate prizes and endowments would remain out of the classification. All bursaries should, as far as practicable, be made entirely open, and awarded at the Senate's general bursary competition without recognising any preferences, whether for name, trade, or religion, of which there are many at present; but restrictions to particular districts and schools we would be disposed to leave as they are, or to allow in future trusts, provided always that the candidates do

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not fall below a fair standard; and we are desirous of suggesting that the giving of bursaries for special departments other than classics, such as philosophy, mathematics, English, or science, should be encouraged as much as possible. A movement to that effect has been started for the first time within the last few months, when a bursary for philosophical ability has been set on foot and will presently be competed for.

11,861. I understand you to approve of open competition bursaries attached to particular schools. What do you say to bursaries founded in particular localities, as, for example, by county associations?—Provided that such bursaries were given at the Senate's open bursary competition, I would not be disposed to interfere with them. I would not interfere with them merely on the ground of their being restricted to a particular district.

11,862. But always requiring candidates to come up to a certain standard?—Certainly. In the event of their not doing so, these bursaries should be open *pro hac vice*. All fellowships should be open only to Masters of Arts with honours, all restrictions of birth, religion, or any other kind being abolished; and in speaking of Masters of Arts with honours, I refer practically to an extended scheme of honours which will be found later on in my evidence. All such fellows should have an opportunity of doing teaching work in the University, but in no case without receiving fair pay for the work they do, in addition to their emoluments; and no fellow, we think, should be asked to correct the professor's class exercises or essays, or otherwise to act as an ordinary professor's assistant. In other words, we desire that the fellows should be asked to do, as far as possible, independent work. As many fellows as possible, especially those in receipt of £100 per annum or over, should be bound to deliver, at some time during their tenure, a course of independent lectures, more or less tutorial and conversational, on some subject within the degree course, subject to the approval of the Senate. For example, a classical fellow, after obtaining the Senate's sanction to lecture on certain of the M.A. pass or honours books, might leave college for a year or two to complete his study of them; and then he might teach in a regular class such students as might wish to come to him from the overflow of the present professorial classes, which, as is notorious, are hopelessly large for purposes of efficient teaching.

11,863. Then would you make attendance upon these classes qualify for graduation?—Precisely in the same manner as attendance on the professorial classes; and of course the fellows should teach at the same fees as the professors, to prevent any undue competition.

11,864. That is a form of extra-mural teaching in the Faculty of Arts?—It might be called so; but I object to the name. Such classes, I suppose, would be given within the University.

11,865. Or might be?—I think they ought to be. It is believed that the professor's position would practically secure him against any competition by such fellows, except in cases where the want of the extra teaching was strongly felt,—that is to say, practically in cases where the professor, for particular reasons, might be inefficient, or where the classes which he was expected to teach might be so large as to render efficient teaching quite hopeless for a large portion of them. I may state that I understand the Professor of Humanity contemplates forming a class during the ensuing session, under one of two assistants whom he desires to appoint—in the junior Humanity, I mean. This class is to be taught separately from the ordinary class. That is an example of the kind of fellow's class which is contemplated in this evidence, with the very important difference that the teacher at present is the professor's assistant,

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and dependent on the professor; whereas, in the proposed scheme, he would be a fellow acting independently, and acting in view of an open career which he would gain by succeeding in the class in question. And for the purpose of allowing a full career, fellows who had opened classes with sufficient success should be at liberty to pursue their course after their tenure of their fellowship.

11,866. *Dr. Muir*.—Your object in making that proposal is chiefly, I suppose, to raise up a learned class, as well as to assist the professors?—Both objects would be attained together. I regard the present staff of professors in Arts as practically quite inadequate to do the teaching work of the Arts Faculty. Therefore it is necessary that some additional staff should be provided. At present there is a limited number of professors' assistants, and it seems in contemplation to increase that number, at least in the case of the Humanity class, where two are to be appointed this year. Those who act with me believe that the multiplication of professors' assistants is a radically bad plan, and that, instead of having teachers who are appointed and dismissed practically at the will of the professor, and who almost never contemplate holding their appointments for more than a few years, it would be better to allow a fellow who had attained his position by distinguishing himself in classics to take up an independent class, and meet with what success he might deserve.

11,867. *The Chairman*.—How long do you think he would continue to teach?—I believe, if they had a prospect before them, they would continue to teach after their fellowships were out, and, if successful, they would make it a permanent career.

11,868. What do you mean exactly by saying they would make it a permanent career?—That is to say, that a classical fellow, for example, if he started with a class of thirty or forty junior students, might hope in time to get a class of seventy or eighty, the fees of which would give him a tolerable income, even after his fellowship expired; and I presume that, if he distinguished himself in that way, he would have a good chance of succeeding to a professorship in Glasgow or some other University. In reference to that, I have received a note from the Clark scholar in Science, who is at present conducting a class very much on the principle which it is desired to introduce—a class of mineralogy. He is an honours graduate in Natural Science, and works under a minute of the Senate of 14th December 1876, by which he was requested 'to deliver a course of lectures on mineralogy, under the direction of the Professors of Natural History and Chemistry, and to give such assistance to the Professor of Chemistry in the examination of his winter and summer classes, and in the chemical laboratory, or in the summer practical class, as may, in the opinion of the examiners, be necessary.' Practically the other provisions have not been pressed, and he has been allowed to teach an independent class in mineralogy, the attendance at which was purely voluntary; and he informs me that the attendance has been remarkably good and steady. He had an average attendance of sixteen students in his first session, notwithstanding all his disadvantages. The class proceeds in the ordinary manner, by lectures and demonstrations in the museum upon the minerals; and he considers that the chief drawback at present is, that as this class will terminate with his tenure of the Clark scholarship, he is unable to give his full attention to it, but must continue to pay attention to the other studies which may be of permanent use to him. If he were at liberty to suppose that, by succeeding in this class, he would be able to get a permanent career, he could work the class more efficiently.

11,869. What is the gentleman's name?—Mr. James J. Dobbie.

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11,870. *Dr. Muir.*—Then, according to your scheme, the fellows would continue to be teachers, if they chose, after their fellowships had lapsed?—Yes.

11,871. *The Chairman.*—Is there anything more upon this head of your evidence?—There is nothing more directly upon that point. The next point is the Snell exhibition, upon which the view of the existing holders of the Snell, and of a number of other graduates, is that the exhibition ought to be increased from £110 a year to £150.

11,872. And reducing the number of them?—And reducing the number of them from fourteen, in five years, to ten,—inasmuch as £110 a year is not sufficient, without a considerable addition, to keep a man comfortably at Oxford.

11,873. But if a Snell exhibitioner goes to Oxford with £110 a year, has he not a very good chance of getting something else in the way of a scholarship?—At present the Snell exhibitions cannot be held by Oxford scholars.

11,874. But has not the Snell exhibitioner, when he goes to Oxford, a very good chance of obtaining an open scholarship, or something of that kind, so as to add to his income?—The chief scholarship open in that way is the Ferguson scholarship.

11,875. But I mean a scholarship at Oxford?—But the Snell exhibitioners are not eligible for scholarships at Oxford.

11,876. Why not?—Under the terms of their scholarship, they are obliged to be members of Balliol, and are precluded from taking scholarships or exhibitions at Balliol.

11,877. What law is there that prevents them from doing that?—It is a regulation of Balliol College.

11,878. At one time the Snell exhibitioners were generally appointed to Warner scholarships. Is that not the case now?—I believe not.

11,879. That must be a recent alteration?—I understand it has been the case for some time. It is proposed to preclude them from competing for the Ferguson scholarships in the event of this increase, because at present there is a large list of prescribed work which varies greatly from the Oxford classical work; and in reading for that they are very apt to spoil their Oxford course, or very severely to overwork themselves in trying to accomplish both ends. As the Ferguson scholarships are only open to those who have taken their M.A., they are induced to study in Glasgow till they take their M.A., and the result is that they go to Oxford too late. I may say, with reference to the Ferguson scholarships, that some of the Snell holders are of opinion that it ought to be left in the discretion of the holders of the Snell themselves, but the general opinion seems to be the other way. There is no doubt that the evils complained of do exist, and competition for the Ferguson scholarship does operate injuriously on the Snell. With reference to the reduction of the number of the Snells, it may be said that it is difficult always to provide three Snells of sufficient ability—to a certain extent because the inducements to leave Glasgow and go to Oxford are not sufficiently great always to draw the best men.

11,880. Are there three every year?—There are at present fourteen Snells. There would therefore be only two every fifth year; but of course, Snells occasionally lapse. In one year recently all three Snells were only second-class honours men of Glasgow; so that, on the whole, there is hardly so good a supply as warrants the keeping up of the number. Then I am desired to state, in view of the increase of the exhibition, that the Snell does not now attract the best Scottish scholars to Oxford, as it was at first intended to do, because the scholars and fellows at the Universities

in Scotland who are open to hold exhibitions and scholarships at Oxford can in various ways get much larger amounts of money.

11,881. That is by obtaining scholarships at Oxford?—Yes. The last four holders of the Guthrie scholarship from St. Andrews, worth £100 for the first and £50 for three following years, have held in Oxford an exhibition of University College, a Warner exhibition at Balliol, a scholarship at Hertford College, and a scholarship at Lincoln College.

11,882. What is the value of these?—An exhibition of University College is worth about £60 a year, a Warner exhibition at Balliol £80 for five years, a scholarship at Hertford £100 for five years, and a scholarship at Lincoln would be rather less. All of these scholarships give them, I believe, a greater amount of money than the Snell. Then there are other examples of the same thing. A holder of a fellowship from Aberdeen has now a scholarship at Oriol College; a holder of a fellowship of £120 for four years from Edinburgh has also a scholarship at Corpus Christi College, £100 for five years; a holder of another fellowship from Edinburgh had gained an exhibition at Balliol College of £60 for four years, and he has since resigned the fellowship on gaining the Scottish inter-University scholarship of £100 for three years. That, however, it is proposed to leave still open to the Snells as at present, because there is no special work prescribed for it.

Then I propose that, for the purpose of conducting fellows' classes, past Snells should be allowed to rank as fellows as soon as they have taken their English Bachelor of Arts; and it is believed that, if a career were provided for them in that way, many of them would prefer to come back to their University and do work in it. It is also proposed to remove the restrictions as to birth. The Snell is at present given to students born in Scotland or of Scottish parents. This restriction it is proposed to abolish. The restrictions as to attendance at Glasgow it is of course proposed to retain, as being an integral part of the scheme of the Snell.

11,883. How long is the attendance required at Glasgow?—Two years, or one year at Glasgow and two years at another Scotch college.

11,884. Then that remains as it was?—That it is proposed to leave as it is; but the restrictions as to Scotch birth and parentage it is proposed to abolish, because they have become practically meaningless for any good purpose, and in two recent cases, one of them my own, they have operated in excluding competitors. The other case is that of Mr. Grigsby, I believe. Then, considering the rising value of the school of modern history at Oxford, it is extremely desirable that the University of Glasgow should recognise this subject in awarding the Snell; and in view of this, it should be stated that the want of a chair or lectureship in modern history has long been felt by the students. The school of modern history at Oxford is taking at present an exceedingly high place, second only to the school of classical greats, and it is very desirable that the holders of the Snell should be in a position to compete for that.

11,885. Does that exhaust what you have to say on the subject of scholarships and fellowships?—I believe so.

11,886. Then I think you desire to state your views on the subject of entrance examinations?—I believe that entrance examinations are absolutely required, and should be instituted at once; and in order to obviate hardships, they might commence with a very low standard,—almost a nominal examination to begin with,—and gradually rise so as to reach a fair maximum within, say, ten years. In that way, practically, little or no hardship would be felt, because the majority of intending students would be able to get as much secondary education as was required if they chose to do so. To meet, however, the remaining

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cases, fellows' classes might take the place of the present junior Latin, Greek, and mathematics, their pupils not being matriculated till they passed the matriculation examination. The students also strongly feel that the teaching of junior Latin and junior Greek within the University is exceedingly detrimental, and is tending more and more to bring up a class of young students to the Universities who ought to be at school.

11,887. Do you mean it has been tending more to do that of late years?—I have not consulted statistics on the subject; but the general impression among students is that that is the fact.

11,888. The average age of pupils who come to the Universities is not so young as it used to be?—There is of late years certainly a considerable number of boys who come up from the Glasgow schools to the Universities at an exceedingly early age.

11,889. At what age?—As young as fifteen.

11,890. Is fifteen the youngest?—Without statistics I could hardly say.

11,891. But at all events there will be very few under fifteen?—Very few under fifteen.

11,892. Are you aware that thirty or forty years ago a great many boys came to Glasgow University who were much under fifteen?—I have not seen any statistics on the subject. I may say that the principal objection to having students of that age at college at present is, that they have hardly the same feelings and views as the large mass of senior students have, and therefore constitute rather a peculiar class in the University.

11,893. They are boys, while the senior students are men?—It comes practically to that.

11,894. Have you anything more to say upon entrance examinations?—Those who attend fellows' classes before matriculating would practically have an extra year at college; and even at present those belonging to this class are hardly able to take their M.A. in the ordinary time and way, and the result of their endeavours to do so is that the standard of the Master of Arts degree is injuriously lowered, as we believe, and they themselves are injuriously over-wrought. To meet these difficulties, and also so far to increase the comparatively scanty number of graduates in Arts, it is believed that the B.A. degree should be revived, to be taken in three years with say two departments of the pass M.A., in which it is contemplated that departments may be added to those at present in use, so that instead of merely mathematics, philosophy, and classics, departments of history and science may be included in the pass M.A.

11,895. And you would require for the B.A. degree an examination in two of them?—In two of them,—not without restrictions. I would be disposed to say either classics or philosophy should be one of the two. The remaining Master of Arts course in that way would be made much wider, and, after having taken the B.A. degree, a student might proceed either to his pass or his honours M.A. in a special subject, such as science, philosophy, or history; and a student taking such a subject as history for the honours Master of Arts, after having passed the simple B.A. degree, would be able, it is believed, to devote much more attention to it, and to attain a much higher standard in it, than at present is at all possible under the complex M.A. scheme. On that head I would say that the feeling among the students at present is exceedingly strong, that the compulsory mathematical pass in the M.A. degree prevents a large number of otherwise able men from graduating at all. I know instances of this among my own friends.

11,896. You desire to have such an option as would enable you to pass without mathematics at all?—That is one of the objects. It is further

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proposed that in the honours M.A. degree there should be three classes of honours instead of two, which it is believed would increase the number of men who read for honours, and would also heighten the standard of the first class. Upon the subject of honours a section of the memorialists wish to state that they believe that the prominence at present given to class prizes and honours in the Universities acts injuriously in overworking many students, and that a large number of students within recent years have been injured from that cause.

11,897. From what cause?—From the overwork produced by excessive competition for class prizes, for example.

11,898. What is your remedy for that?—The remedy suggested is a classification of the students into say three sections, as, for instance, in the medical classes at present.

11,899. *Lord Moncreiff*.—So as not to allow the weaker to compete for the higher prizes?—The abolition of class prizes is contemplated.

11,900. *The Chairman*.—In place of giving prizes, to classify the students?—Yes. That is the view of a section of those who signed the memorial. Personally I am not inclined to agree with it, because I think the existence of the class prizes produces a large quantity of exceedingly good work, which would be lost without the stimulus that it gives, although it is beyond doubt that overwork does result, and many students of recent years especially have been injured by it.

11,901. *Lord Moncreiff*.—Wherever you have a stimulus, that must more or less take place?—Undoubtedly.

11,902. *The Chairman*.—How many years have you attended the University of Glasgow?—I was in the University of Glasgow for five years.

11,903. Then of course you have seen a good deal of the election of Rectors?—I have.

11,904. From what you have seen of the rectorial elections, have you any suggestion to offer on that subject?—The present is the third rectorial election in which I have taken part, and I would strongly object to the abolition of the student constituencies for the rectorship, because I believe it is of considerable use as a means of directing the students' attention to political subjects, and so of political education; and I believe also that the delivery of a great speech to the students once every three years is a desirable object in itself.

11,905. In an educational point of view?—In an educational point of view; and I believe, further, that it is reasonable that the students should have power through the University Court to express any strong general opinion that they may hold on educational or kindred questions.

11,906. But does the election of Rector give them the power of expressing such opinions?—If the students hold a strong opinion upon a particular subject, such as, for example, a subject connected with graduation, it is in their power to elect a Rector sympathizing with their views, which would give them at once two votes in the University Court.

11,907. Do you think a Rector has ever been elected on such a ground as that—because he entertained particular views on graduation and the like?—I am not certain of the fact, but I believe that such questions had something to do with the election of Professor Huxley in Aberdeen.

11,908. Not in Glasgow?—Not in Glasgow.

11,909. Would you suggest any change in the mode of election?—The principal change which I am disposed to suggest, although there is a difference of opinion upon it, is that the nations should be abolished.

11,910. And that the election should be by a general poll?—By an absolute majority of the students. The question of the abolition of nations, in Glasgow at all events, divides the college practically accord-

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ing to political parties. The Conservatives in Glasgow support the vote by nations as a rule, and the Liberals and Independents oppose it.

11,911. Is there any reason for that?—The reason usually given is, that all recent Chancellors of the University have been Conservatives.

11,912. *Lord Moncreiff*.—You think if the students were all massed and the nations abolished, it might be different?—If the nations were abolished, the Chancellor's casting vote would cease to have any importance.

11,913. *The Chairman*.—You mean the existence of the nations leads to the Chancellor sometimes having to give a casting vote in the election of Rector?—Certainly. The way in which the thing practically works is this, that a party in Glasgow which is in a minority—which cannot get an absolute majority of the students—directs its attention to getting a majority in two nations if possible, especially if it hopes afterwards to get the casting vote of the Chancellor.

11,914. *Lord Moncreiff*.—If the nations are two and two, the Chancellor's casting vote carries it?—Yes. My principal objection to that is, that, in consequence of the result I speak of, it leads to an infinite variety of electioneering, and sometimes to electioneering tricks of a somewhat doubtful character. Of course the extent of such abuses is very much debated in the college; but it is practically admitted that faggot voting, at all events, does prevail to a certain extent.

11,915. *The Chairman*.—You mean that men matriculate for the purpose of being able to vote?—For the purpose of being able to vote, without the intention of being *bond fide* students.

11,916. Do you think that exists to any great extent?—I am certain of particular cases of it having occurred within my own observation.

11,917. You mean individual cases?—Individual cases. I was in the Ruskin-Disraeli election six years ago. I was a teller in the nation Londoniana on behalf of Mr. Ruskin, and I was practically certain that a certain number of spurious votes were tendered there.

11,918. You mean that they matriculated without intending to attend the classes?—And did not subsequently attend. It is difficult to ascertain how far the thing has prevailed, but there has been such a thing.

11,919. Do you think there would be less chance of that abuse if the students all voted in one body?—Much less. In the first place, there would be much less temptation to it, because in many cases it would be quite clear which party had an absolute majority; and second, it would be much less easy to secure a majority by any such means; whereas at present even a party which is in a very great minority indeed can by a comparatively small amount of spurious votes secure a majority in the two smallest nations. For example, a minority of 100 over the whole college means only 20 or 30 if you have merely to carry the two small nations. Other objections urged against the vote by nations are, that the division is practically obsolete, the purposes for which it was instituted having entirely passed away. It is not by any means a means of promoting social intercourse, as in certain foreign Universities, because the students in Glasgow fall naturally to be divided into faculties. Further, it is an anomaly that it should depend on chance whether the students should elect their Rector, or whether he is chosen from two candidates nominated for them by the Chancellor.

11,920. Was not one reason of the institution of voting by nations that, if the other mode were adopted, the students in and about Glasgow, being much more numerous, would have it all their own way, and the students from a distance would be unrepresented altogether?—Yes; but the reason why it is stated that the division is now obsolete, is that it is

not believed that there is really any vital difference of opinion between the students in Glasgow and those from a distance. I believe the original reason was,—I state it on the authority of an article on the subject in *Blackwood* for 1854,—that foreign students might have their privileges curtailed or taken away by the jealousy of the home students. It is needless to say that any difficulty of that kind is now quite chimerical.

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11,921. *Lord Moncreiff*.—As it is, the Glasgow students would divide among themselves, just like the rest of the students?—Certainly. Practically I never heard of the nation Glottiana taking any particular side as such. It is not at present understood as attached to either political party. It sometimes votes with the one, and sometimes with the other. In support of the voting by nations, and against the reasons which I have stated, it is alleged—

11,922. *The Chairman*.—Is that by some of your friends?—By two of the memorialists, representing Conservative opinions on the subject. Perhaps before I read the letter, I should say that various plans have been put forward lately with a view of abolishing or mitigating the practice of faggot voting. One of these is, that the election might be held either after the Christmas holidays or at the end of the session, by which means of course it would be absolutely abolished, because no one who had not been a *bonâ fide* student during session could vote, especially if a certificate of attendance was required. To that it is objected that it would keep up the party excitement all through the session, although during the session before a considerable amount of party excitement constantly prevails even now, and that is especially the case at the present election. Another method proposed, though it is very unpopular, is to disfranchise the first year's students, and to secure that the voters should be second year's students. To that it is objected that it would exclude many *bonâ fide* students, and that, 'besides, it would not touch the case of students who have spent three or four sessions at college, but who return at election times. So-called faggots are chiefly got from this class, who of course take a much greater interest in the election than non-University men.' The quotation is from the letter above mentioned.

11,923. Men who have been previously students?—Yes.

11,924. You were going to tell us the reasons in support of the system of voting by nations?—The reasons given in this letter are, that 'there are many Glasgow men who are not students in the proper sense of the word. They join a class for perhaps a single year, simply as a sort of finish to their school education. These men would never have been students but for the accident of a University being at their door; but the abolition of the nations would give them immense influence in the election. If it is to be understood that the Rector is elected by the students only,—not by the students and the Chancellor,—a fifth nation might be created by the division of one of the larger existing nations, when of course there would be no chance of a tie.' As for the invidious position in which the Chancellor is alleged to be put, the writer of this letter, Mr. Walter Coats, suggests that 'the Chancellor ought to have no more feeling in this matter than in giving any other political vote. It is purely a political question, which rests with the students and the Chancellor.' My other Conservative correspondent, Mr. A. F. Fraser, writes that 'voting by nations should not be abolished, because (a) it has many supporters among the students, quite apart from political considerations; (b) the division is not obsolete, but is absolutely better now than ever: it is the only means whereby each student can get a fair representation, whereby e.g. the lads from Glasgow shall not have the whole say in the matter; (c) the case now is that the Chancellor is seldom called on; (d) and it

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might be obviated by creating a fifth nation, cutting Loudoniana into two parts—(1) those born in the United Kingdom, (2) those born abroad.

11,925. Is Loudoniana the largest?—By no means—it is by far the smallest.

11,926. Glottiana is?—By much the largest.—This proposed division of Loudoniana would be really absurd, because the numbers of those born abroad would in no case exceed fifty. It might be possible to divide Glottiana, but I fail to see any object that would be attained by having five nations under the present scheme which would not be equally attained by abolishing them altogether.

11,927. It is not easy to see how you could divide Glottiana, unless into the right and left, because of the river?—It might be divided into those belonging to Glasgow and those belonging to Lanarkshire.

11,928. *Lord Moncreiff*.—You might have an uneven number of nations, so that there would always be a majority?—But the temptation to electioneering dodges would remain and be intensified. In that case it would always operate on both political parties, whoever the Chancellor might be. Another scheme proposed is that there should be five nations corresponding with the years the students have attended,—the junior students one, the second year's students another, the third another, the fourth another, and the fifth and all above another. The arguments in support of that view are, that it would give additional weight to the senior students and lessen the influence of the junior students, which, from their necessarily imperfect knowledge of political questions, is at present rather unreasonable. I may say that is the proposal of one of the memorialists, and it is supported by a few of them; but it is not exactly a popular proposal. Again, with the view of obviating many of the existing election dodges,—such as, for instance, personation, which is proved to have existed to a certain extent,—it is proposed that voting-papers might be allowed at the election. I believe there is a statutory bar to that at present, but that could be removed. Allowing the election to take place by voting-papers would have certain very advantageous results, because at present a considerable number of men, and these especially the senior students, are inevitably prevented from attending on the election day, and consequently lose their vote.

11,929. *The Chairman*.—I am afraid the introduction of voting-papers in the election of Rector might be attended with great expense?—The students could deliver their voting-papers personally at the University, or by proxy.

11,930. In what case do you mean?—I mean that the expense of issuing the voting-papers and returning them would in all cases be readily borne by the committees of the candidates.

11,931. That may be, but still the expense might be very considerable. The experience of the election of a representative in Parliament for the two Universities is, that the system of voting-papers is attended with great expense?—But in this case the whole constituencies are within a narrow range. The students could call for their papers at the registration office, or they could get them with their matriculation tickets; and they could return them either personally or through the committees. Except for the mere printing of the papers, I do not see what expense there could be.

11,932. How many of the students do you suppose are prevented from being present on the day of election? It is in their interest, of course, that you make the suggestion?—Yes.

11,933. How many may be absent?—In the case of the nation in

which I myself was teller in the Ruskin-Disraeli election, I think there were eight or ten per cent. absent.

11,934. What, generally speaking, is the cause of absence?—In many cases it is the fact that the senior students—law students and others—are detained in offices, and cannot easily attend at the University during the hours of polling, which are in the forenoon. As a matter of fact, the present system is very expensive, for we have to send cabs for all these; and, even so, many cannot vote.

11,935. Might that not be met by altering the hours of polling?—So far it might, but to make that effective the polling would require to extend over the whole day, and that would be attended with inconvenience to the professors, I suppose. I have not heard among the students of any serious objection to the plan of voting-papers. It would ensure that each member of the constituency could deliver his vote without being debarred by accidental circumstances from coming to the University.

11,936. Anything more on the subject of rectorial elections?—The only other point that I wish to state is, that the difficulty of personation which has been experienced can be avoided under the present system by compelling each student as he votes to sign his name, to be compared with his signature in the Album; but the Senate of Glasgow have just issued regulations compelling the voter to do so in the pending election.

11,937. Does not that lengthen the proceedings very much?—It has not been tried, but I don't believe it will do so, because under the former system, after the voter came in, a considerable time was lost in identifying his name in the printed list and marking him off, during which time he can sign his name and pass out. The only other point I wish to mention is this: in consequence of the importance of nations, and the importance which in that way attaches to the place where a man is born, it is asserted that in some cases a false birth-place has been given.

11,938. In order to get into a particular nation?—In order to get into the particular nation in which votes might at that time be valuable. This danger is, of course, another reason for the abolition of the nations altogether.

Adjourned.

FRIDAY, 30th November 1877—(Seventieth Day).

PRESENT,—

ARCHIBALD CAMPBELL SWINTON, ESQ. *Chairman.*
 THE LORD JUSTICE-GENERAL.
 LORD MONCREIFF.
 DR. JOHN MUIR.
 JAMES ALEXANDER CAMPBELL, ESQ.

CHARLES DUNCAN, ESQ., examined.

11,939. *The Chairman.*—You are a member of the Society of Advocates of Aberdeen?—I am.

11,940. And a member of the General Council of the University of Aberdeen?—Yes.

11,941. Are you a graduate?—No.

11,942. You have given attention to the working of the special

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bursary system at Aberdeen, have you not?—I have been much interested in it, and, so far as information can be got from the public prints, I have been attending to the matter.

11,943. We shall be glad to have any views you entertain on that subject?—I think I had better read what I have prepared, as follows:—I propose to bring under the notice of the Commissioners some facts relating to the bursary system in Aberdeen. The Commissioners under the Act of 1858 decreased the number and increased the value of the bursaries. The effect seems to be, that some of the bursaries are of such high value that it is considered expedient to delay a University curriculum, in order to competing for these bursaries, till in many cases a period of life when it is generally considered proper that a young man should be closing, and not entering, his career at the University. The information I have gained is entirely from the public prints, and, as to ages, from inquiries. I have not had access to the University books for information for this purpose, and I do not know of the information being obtainable elsewhere. A bursary of the value of £10 is more than sufficient to cover the fees payable by a student during his four years' curriculum in Arts. Since 1867, 101 students have gained bursaries of the average annual value of £11, 7s. 3d. or thereby, and yet have declined these bursaries and competed again, with the result of increasing the average annual value of the bursaries gained to the value of £19, 10s. 8d. or thereby.

11,944. When you say competed again, you mean that during that interval they did not attend the University, but went back?—They go back to the schools, and come back again to the University. There may be a case in which a student has gone on after his competition; but as a rule they have gone back to school, and come back again. I now go on with my paper:—I have to explain, that in calculating the value of these declined bursaries I have taken the value of the next succeeding accepted one as the value of the declined one; and where there was no such guide, have valued the declined bursary at £10. Those who gained the higher bursaries on the second competition in general got considerable increases to the value of their bursaries, but not such increases as would in the common case be considered to remunerate a young man for postponing his University career for a year. The purpose of bursaries is to assist students in obtaining a University education; but in the case of those who have to wait till they are eighteen years of age and upwards before they can obtain a bursary of such value as will enable them to encounter a University career at Aberdeen, it seems to me questionable if they are the students whom it is of advantage either to the country or to the University, or fair to other students, to encourage by such means to take a University education. I understand the average age of boys, other than those carrying off the higher bursaries, going to college to be fifteen or sixteen, and if so, those of eighteen and upwards do not compete with their companions of equal years, and it may be safely said that they are unable to do so. I believe the result of the University career of such men has been to show that many of the higher bursars' names do not appear in the list of honours at graduation. It will be a mistake if the effect of the bursary competition should be to encourage lads to defer going to college. If it is the pecuniary consideration which induces such bursars to postpone the commencement of their University career, I do not think that is a thing to be encouraged. It is not the object for which such bursaries were founded. As to the University, I do not think that students of eighteen and upwards either get or contribute to the advantage of University life. I presume these high bursaries were intended as prizes; but if lads of fifteen or sixteen know that they will

have to compete with those of eighteen and upwards, the young lads are too heavily weighted to hope for success. So far as I can, from the newspaper publications of the last ten years, collect the result of the bursary competition, there have been, as I have said, 101 bursars who have competed a second time during that period, an average of ten per annum; but this average seems to me to be steadily rising, as will be seen from the following table:—

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NUMBER OF BURSARS WHO COMPETED AND GAINED BURSARIES A
SECOND TIME, IN EACH OF THE FOLLOWING YEARS.

In 1868 there were	5	In 1874 there were	16
" 1869 "	6	" 1875 "	9
" 1870 "	7	" 1876 "	9
" 1871 "	10	" 1877 "	24
" 1872 "	6		
" 1873 "	9		
		For ten years,	101

Average thereof, 10·1

These matters also influence the schools in Aberdeen. My attention was first drawn to this subject by the appearance of the various schools in Aberdeen at the bursary competition. The stimulation of schools is a recognised object of the bursary competition; it is held in Aberdeenshire by most people to be the test of efficiency of the schools in which boys are prepared for the University. I had a personal interest in finding out the best schools in Aberdeen, and was disappointed to observe year by year, that the Old Aberdeen Grammar School held a place in the competitions much ahead of the other two schools in Aberdeen (counting Old Aberdeen as part of Aberdeen) which were the nurseries of the University students. In my day the Aberdeen Grammar School carried off all the bursaries at Marischal College, and held a fair place, as I have always understood, at King's College; but during the last ten years it has been quite passed by the Old Aberdeen Grammar School. The gentleman who was once rector of the school was blamed for its first loss of position; but since he left, before 1860, the whole teachers of the school have been first-rate, and yet the school has never regained its place. The other school in Aberdeen which has been, during the last ten years, the one chosen by the middle-class families in Aberdeen for the education of their children, has been the Gymnasium of Old Aberdeen; and from what I know of it, I have no hesitation in calling it a first-rate school, yet it never has competed successfully at the bursary competition with the Old Aberdeen Grammar School. I consider the effect of this to have been very bad in Aberdeen. It has raised a doubt of the quality of education to be obtained in Aberdeen, a doubt which it appears to me must act on the education of the boys of the middle classes in Aberdeen in two ways: it will either tend to make parents careless about the highest educational culture for their children, from the doubt it casts on the attainment of that in Aberdeen, and thus induce them either to withdraw their children from University education, or to consider it a form necessary for certain professions, but only possible of being gone through in a perfunctory way, from the middle-class schools in Aberdeen not being able to educate students for first places in the University; or it tends to make them send their children to the south for schooling, which, whether a hardship or not, is a course which should not be forced in this way on parents. It will be a serious matter for the University if the average age of the students entering it should be about and above eighteen years

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of age. These men of eighteen years are, I think, crammed for gaining a bursary, not men of good general education and culture from early years onwards. The Grammar School was, till the passing of the Education Act, under the charge of the Town Council of Aberdeen, and under their charge it had made its good name and apparently lost it. It was thought by some that under the School Board a change would be produced, but so far as appears from the bursary competition, matters remain as they were. And I think both these governing bodies have done well by the school. The Grammar School of Old Aberdeen is a classical school, but I know of no boys belonging to Aberdeen being educated there, and the children of the professors and others of the middle class residing in Old Aberdeen are not sent there.

11,945. Where are they sent?—To the Gymnasium. Old Aberdeen Grammar School carries off all the bursaries.

11,946. *Dr. Muir.*—How does it carry them off? Is it a better school?—I am unwilling to say so, but it crams its students for a bursary competition; and I have no doubt you will find that they are not lads of much general culture. They are lads who have gone to the Grammar School to be crammed to gain a big bursary. I hardly like to use such strong language, but I am forced to the conclusion that they go in for a bursary as an aliment—as their support. To go on with my statement:—On making further inquiry, I have been informed that the bursars educated at the Old Aberdeen Grammar School were older than those coming from either the Aberdeen Grammar School or the Gymnasium,—were lads of eighteen and upwards,—while the students, sons of those in Aberdeen who had devoted their children to education, were, when sent to the University, of the age of fifteen or sixteen; that therefore the competition between the schools was not fair; and, secondly, that the Old Aberdeen Grammar School got a greater proportion than other schools of credit in the papers from lads who declined their bursaries on the first occasion of success, and went forward a second time, thus carrying honours twice to the credit of their school. I have been unable to ascertain facts as to ages, but I believe what was told to me will be found to be the case. I have ascertained from the advertised results of the bursary competition, that of the 101 bursars who were successful after a previous successful competition during the last ten years, 53 came from the Old Aberdeen Grammar School, 10 from the Aberdeen Grammar School, 11 from the Gymnasium, and 27 from other schools. During the said ten years the Old Aberdeen Grammar School carried off 312 bursaries; Aberdeen Grammar School, 116 bursaries; Gymnasium, 72 bursaries; and others, 164 bursaries. The first bursar of this year has been a successful competitor for three years. In 1875 he was 12th bursar, gaining £15; in 1876 he was 7th bursar, gaining £20; in 1877 he was 1st bursar, gaining £35. He is twenty years of age, as I am told. Of 66 successful competitors for 45 bursaries (21 having declined the bursaries they gained) awarded last October, 35 students from Old Aberdeen Grammar School gained bursaries, of whom 16 had before been successful competitors. All the other schools had 31 bursaries, of which 8 were gained by students who had before been successful.

11,947. In the case of the student who gained a bursary three years in succession, did he reject the first two?—Yes.

11,948. *The Chairman.*—Who gets these bursaries?—The next boy in order.

11,949. If the next best student gets it, the bursary does as much good, does it not?—Yes; but this lad was quite fit for his University career in 1875. He gained a £15 bursary, which is a high bursary, and yet he

went back to pupil-teaching. He went back and gained a £20 bursary, and then he went back again, and gained a £35 bursary. But now he comes in not a student at all, but a man; and, as it appears to me, he can never mix with the rest of the boys. And he has £35 a year for four years.

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11,950. And you think that the result of the ultimate competition for honours in the classes proves that he does not exert himself, but merely supports himself on his bursary?—I believe that to be the case. From what I have said, you will observe that any gentleman at home reading the result of the bursary competition says to himself, 'Well, here is the Old Aberdeen Grammar School taking away thirty-five bursaries; he gives that school credit for thirty-five excellent places; whereas, if it was not that it withdrew those students and sent them back again, it would have credit only for eighteen places. And the effect of that is—(it was upon myself)—'I can't send my boys to any school in Aberdeen; they cannot compete with this Old Aberdeen Grammar School.' I again point you to a case in point, as to its effects upon schools. In 1873, five lads from Milne's Institution, Fochabers, got five bursaries. They were all declined, and the lads came up again the following year and got five bursaries; and the teacher of Milne's Institution, Fochabers, took credit for having a first-rate school, and he got advantage by that credit.

11,951. But is it not an advantage that a boy should go on at school, and not go to the University until he is the length of, say, eighteen?—That is the point. As you will see from the little information I have got, one is as high as twenty-two. It is, of course, no competition when men enter it along with boys. If the boys are to go to the profession of the law or of medicine, or are to become ministers, they must go to college about sixteen or seventeen.

11,952. On the other hand, the boys who come in second best get the benefit of the bursary which the other boy has declined?—They do; but they are competing with lads who have kept themselves back, simply, as far as we can see, for the purpose of greed, and gaining money. That is not the object of a bursary competition.

11,953. I see the evil; but with regard to the first declinature by them, or the second, somebody else benefits by the declinature?—No doubt.

11,954. *Mr. Campbell.*—You hold that any successful candidate for a bursary should be fit for entering college?—There is no doubt of that.

11,955. Do you think it a misfortune to that student to be kept back a year?—It is a mistake in a pecuniary point of view, because if he knew the value of his labour he would know that, if he were through college, it would be more valuable than any bursary he could gain. And it is a mistake in another way, namely, that it introduces into the college not lads, but men, who don't mix with the boys.

11,956. You blame the schoolmasters for encouraging this system, do you?—I really can't say who is to blame. I suspect a great many lads themselves are to blame. The lad who went back to be a pupil-teacher, as I have mentioned, would, if he had taken the £15 bursary, have got £60 in the four years, and £80 if he had not declined the £20 bursary; and now he will have £140. If it was merely assistance he wanted to get, £20 was ample. But staying back in that way, I think he does harm to the University. Now I have a return as to the honours. This system does not result in bringing in first-class lads, whom it is desirable to encourage to go to the University. I have the return only for 1876. It appears to me that if the Commissioners think the matter worth investigating, the only reliable statistics would have to be got from the University books. In this return for 1876 it will appear who were the men who gained

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honours. Still the first-class bursar of any particular year might have been forced to retire from his college career—might have died; there is no way of ascertaining exactly from the public prints why any one name does not appear in the list of honours. The following is my return:—

Honours in Classical Literature.

Class I.—1. 18th bursar.

2. 8th „

3. 8d „

Class II.—1. 29th „

2. 11th „

3. Not a bursar.

4. 16th bursar.

Honours in Mental Philosophy.

Class I.— 16th bursar.

Class II.—1. 29th „

2. 27th „

3. 3d „

Honours in Mathematics.

Class I.—1 Not a bursar.

2. 54th bursar.

3. 1st „

Class II.— 14th „

Honours in Natural Science.

1st. 54th bursar.

2d. Not a bursar.

Then I also produce a list showing the appearance of the £35 bursars in the graduation honour list, taking it that they entered four years previously, from 1865 to 1870:—

1865	John M. Fleming.	1869	James Porter.
1870	Gained no honours.	1874	No honours.
1866	Alexander Ogg.	1869	Alexander Bruce.
1871	Gained no honours.	1874	Honours in classics.
1867	David Craib.	1870	David Skinner.
1872	Gained no honours.	1875	Honours in classics.
1867	Donald Sime.	1871	John M. Trail.
1872	Honours in classics.	1876	No honours.
1868	James Rattray.	1871	George Henry.
1873	Honours in classics.	1876	No honours.

Thus, out of these consecutive £35 bursars, six had no honours, and four had honours.

11,957. How many bursaries are there altogether of that value?—One, and sometimes two a year.

11,958. *Mr. Campbell.*—You think that bursars do not make the best students?—The names of the highest bursars do not always appear as gaining honours at the end of their career.

11,959. *The Chairman.*—You have now exhausted your paper, have you not?—Yes.

11,960. Will you now tell us what remedy you suggest?—Practically I think no second competition should be allowed.

11,961. That if a man goes as a candidate for a bursary, it should be

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on the understanding that he is to be a student of the University that year?—Yes; and if he gains a bursary, he should be obliged to go to the University that year, or not be allowed to compete again. I doubt, however, whether the rule should be made so hard and fast as that, because it might come to be very hard in particular cases. It occurred to me that perhaps the object might be gained if the competitor for bursaries had to pay a fee, and a competitor a second time a very much heavier fee; or if a man who only gained a bursary after the second competition had either so much taken off his bursary every year, or were put down two or three places, because it was gained on a second competition,—that is, if he gained a third bursary, he should get only a sixth.

11,962. Do you think a rule of that kind would be better than fixing an age for the several competitions?—My objection to fixing an age is that we have had several men in Aberdeen who have come up late in life to college, and who have done very good work indeed in science in after life; and though there are presentation bursaries, which I understand could be got to meet any of these cases, still they might wish to compete at the regular bursary competition, and they might be excluded from a University education if a rule as to age were made hard and fast.

11,963. *Mr. Campbell.*—You think that the most complete remedy, that students should only compete once for a bursary?—I think so.

11,964. *The Chairman.*—That is to say, if he gains?—Yes.

11,965. If he fails he might compete again?—Yes.

11,966. I presume that now, if a student who gains a bursary accepts and goes on with his classes, he cannot compete a second time for a higher one?—I understand not.

11,967. Bursaries are taken at the entrance to the University?—Yes.

11,968. *Dr. Muir.*—But if he comes up with the intention of not taking the bursary, what motive has he for going up to the competition?—In my day, and I believe it has been the case ever since, many young lads who compete have not any intention of going to college. I myself competed and gained a bursary, not having an intention to go to college. Our motive was to see how the bursary competition was managed, so that we might be better able to do our part when we really went forward with a desire to gain a bursary.

11,969. *The Chairman.*—We understand that under the old system, before the last Universities Act, it was competent for a student who had gained a small bursary to compete for a higher one next year, although he had been attending college in the meantime; and that when he did so, the result was, he was sent back to the junior class to commence over again. That system does not exist now?—Some lads who have gained a bursary put down, as one of the places where they were educated, the University. That probably arises from their being able to enter the second year, and avoid the first class at the University altogether, and make their curriculum one of three years.

11,970. They compete at the end of the first year for a bursary in order to enter on a three years' course, and if they do that, the University is credited as the place of their education, because they have attended the first year there?—I understand so.

11,971. Would that be allowed if they had gained a bursary the first year, and had attended the first class in consequence of having taken a bursary?—I am not aware that the University appears as the sole place of education; it is always bracketed with another.

11,972. Would not your suggestion of not allowing a man to compete more than once, have the effect of making those who wished to gain a higher bursary, still delay competing at all till they thought they were well

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enough advanced to take the higher bursary?—I suspect it would; my suggestion does not meet that case. I know that several people in Aberdeen, who have paid attention to this matter, are much in favour of the age of competitors for bursaries being limited.

11,973. But are you quite confident there are such evils as you speak of from a man not entering the University until he is in some degree advanced in life?—If the majority of the class enters at fifteen or sixteen years of age, and the lads who are the leaders of the class are four years older, the leaders keep themselves apart, and the class wants the benefit of having its leaders boys in sympathy with the whole class.

11,974. *Mr. Campbell.*—It has been suggested by some witnesses that there should be in all our Universities a preliminary examination at the beginning of the students' course for graduation, and also that the bursary competition should be combined with that, and that those who did best at the first examination should be the successful bursars. In that case there would not be an opportunity for the evil you speak of, because there would not be a second opportunity afforded the students?—I don't see how that would prevent a lad being told he had passed and got £15, and saying, 'I have changed my mind, and I won't go to college this year.' That is exactly what they do now. When the principal announces in the hall that they have gained such-and-such a bursary, they decline it in the way I have explained; and up to that moment the college authorities have been under the impression that they were all going forward.

11,975. Do you think that if the bursary competition was combined with the University examination, such a thing as declining could be done?—Well, of course, it might be made compulsory, that when a student took the bursary to which he was entitled, he should not be thereafter entitled to a bursary at the University.

11,976. *The Chairman.*—If such were the rule, would there not be a certain hardship in many cases, such as that of a student who could not afford to attend the college unless he got a better bursary than the lowest? He goes into the competition hoping to get a better bursary than the lowest. He goes in for, say, the second, and he only gets the lowest. Would it not be a hardship to say that on that account he is not to be allowed to go back to school, and try for a better one?—That is a case in which I think any hard and fast rule would operate as a hardship.

11,977. But is it not difficult to make a rule that is not hard and fast?—It appears from the papers that the total number of competitors this year was 232, and in the previous year 231. 132 of these did not go on. So that the professors or gentlemen who examine for these bursaries are put to the trouble of examining the papers of 232 students, of whom 132 have not the least intention of going to college. If you want to know the state of a lad's Latin, or anything of that sort, send him to the bursary competition and you get him examined for nothing.

11,978. *Mr. Campbell.*—A sort of extra-academical test?—Yes.

11,979. *The Chairman.*—But if 232 compete, and only 100 go on, what becomes of the money that the other 132 would have got?—That seems to be rising to an abuse; now to make any number of gentlemen examine 232 sets of exercises in order to determine a bursary competition is surely a waste of power, and it seems to me to be an evil that should be checked, and the only check I have been able to think of is to say that every competitor must pay a small sum towards the expense of the bursary competition.

11,980. It virtually corresponds to middle-class examinations?—Yes;

but then only the names of the successful ones are published. You know nothing about what place the unsuccessful ones took. After the professors have allocated the bursaries, they do no more.

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11,981. You admitted that in your opinion it would not do to have a hard and fast line never to allow a man to take a higher bursary. Would it do never to allow a man to try more than twice?—If a man has had two chances he has had enough.

11,982. You see a little hardship, do you, in giving him only one?—I think the best way to prevent it would be to weight the student on the second chance—that is, he should have to pay an enlarged sum, and if he was to come up again, a very much enlarged sum; and the effect of that would be to keep back the rush of second competitors.

11,983. What kind of sum would you suggest for that?—It appeared to me that half a guinea is a sum that nobody could object to; but a gentleman in Aberdeen, who has paid much attention to these matters in Aberdeen, suggests to me that 2s. 6d. would be enough for the first competition.

11,984. And what for the second?—We were agreed that it should not be less than half a guinea. I am inclined to say a guinea.

11,985. And for the third?—There is only one case I can find out from the papers where a third competition has been tried, though I am told there have been other cases of third competitions. In this case I would make the fee a couple of guineas, or perhaps more.

11,986. *Dr. Muir.*—That proportion of rise is so small, that it could scarcely be expected to produce any effect?—It is marvellous how small fees produce an effect. It would, besides, be an indication on the part of the University that this was a thing that was disapproved of. If such an arrangement did not interfere with the trust bursaries, a better way still might be to say that if you only get your bursary on a second competition, we shall deduct 10 per cent. off it every year.

11,987. *The Chairman.*—But that would interfere with the foundation on which the bursaries rest?—I suspect it would.

11,988. *Mr. Campbell.*—You don't think that the publishing of the ages, or of the fact of its being a second trial, would suffice to deter them?—The publication of the ages is, I think, only just to the other schools.

11,989. *The Chairman.*—You think the teachers of other schools who send students to Aberdeen object to this system—the system the Old Aberdeen School pursues?—I am not aware of the feeling of the country schoolmasters.

11,990. If it existed to any great extent, or if they felt it as an evil, would they not have made a representation of it to us?—The schools that have reason to complain are the Aberdeen Grammar School and the Gymnasium.

11,991. Why not the smaller schools?—The lads that come up from them are the very lads who take advantage of the arrangements. They are kept back till they are much older than those educated regularly in Aberdeen schools, and then sent up for a quarter's cramming at the Old Aberdeen Grammar School. Then they go in and get bursaries.

11,992. Any examination decided by competition must always have a certain element of 'cram' in it?—Yes.

11,993. Do you think you have told us all you can suggest which you think a remedy for this evil?—With the publication of the ages, I think I have.

11,994. You think that would prevent a school getting a fictitious credit for what it does not deserve—if it were indicated to the public that these men were so much older than the others?—Yes. I don't see, how-

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ever, how you can regulate its being put into the papers; but, certainly, the authorities should let the age be known, and whether it is the candidate's first or second trial. I believe the age of the lad I have mentioned would have appeared as upwards of twenty; if this had appeared on the third trial, he would have got no credit by taking a £35 bursary from all the other lads.

11,995. *Dr. Muir*.—You mean that it should appear that he had tried a first and second time, but had rejected the bursaries on the two former occasions, and accepted one on the third occasion?—Yes.

11,996. *The Chairman*.—But you suggest that he should not be allowed to try a third time?—I think it is not the purpose for which bursaries were established.

11,997. The tenor of your advice was that he should be allowed to try a second time, in case the first was not sufficient to meet his pecuniary views. In that case you would allow him to try a second time, but not a third?—Yes. If no man were allowed to try a second time, there might be cases of much hardship. But if he were allowed to try a second time, I would let him know that he has to pay a little more for it, or that he is not to get the full value of the bursary he takes. Taking a percentage off might interfere with the foundation of the bursaries; but the same object might be gained by putting him down a place. The chairman referred to the fact that it was no hardship to the competitors that a lad declined his bursary, because the next got it. But to the students who have come up competing for the bursaries in 1876-77, it is a hardship that twenty-five had before competed and declined, and been kept back till of more mature years, and then brought into competition with them. The lads who go to the bursary competition once, and then go forward, are those who have had the best preliminary education, and who have been at the best schools in Aberdeen from their youth; and the result of it is, that parents say to themselves that the best schools cannot compete at the bursary competition. I am told that those who come from Old Aberdeen Grammar School and get the bursaries are not lads of much general education. It is just simple version-making.

11,998. *Dr. Muir*.—Is not the University examination of such stringency as to detect cramming, and distinguish it from real knowledge?—They are first-rate version-makers, and the making of versions brings a preponderance of marks.

11,999. You refer to version-making from English into Latin or Greek, not *vice versâ*?—Yes. The teachers tell me that you can educate a lad who would be a first-rate version-maker, and who would not know the Latin-English so well as another.

Adjourned.

SATURDAY, 1st December 1877 (*Seventy-First Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman*.

DR. JOHN MUIR.

ARCHIBALD CAMPBELL SWINTON, Esq.

Professor Sir HERBERT OAKELEY, examined.

Professor Sir
Herbert
Oakeley,
Edinburgh.

12,000. *The Chairman*.—You are Professor of Music in the University of Edinburgh, are you not?—I am.

Professor Sir
Herbert
Oakeley,
Edinburgh.

12,001. How long have you been so?—Twelve years.

12,002. Have you had a class during that time?—I have.

12,003. Every year?—The first year of my election I was allowed some leave of absence—1865–66; and the class commenced the following year, 1866–67.

12,004. What numbers have you had attending the class?—I should think the average has been about eight attending the class to which I refer, but I also have a choral class of some 200 students, forming the ‘University Musical Society,’ which meets at my class-room once a week.

12,005. What class of students are they who attend your classes? Are they students intending to prosecute the study of music?—I think not generally.

12,006. Then they are persons of a musical turn who come to the class very much as a matter of enjoyment?—They wish to get some knowledge of music without desiring to carry it out professionally. I am not aware of an instance of a student having taken it with a view to a profession.

12,007. The University of Edinburgh has not been in use to grant degrees in Music, has it?—No.

12,008. Do you think that degrees in Music ought to be conferred by the University?—I think so.

12,009. Perhaps you will give us your views on that matter?—I will with permission read a statement I have prepared. The University of Edinburgh is the only one in the anomalous position of possessing a chair of Music without exercising the power of conferring degrees in that faculty. It is scarcely possible to think that, in founding this chair, General Reid intended his professorship to differ in so important a point from all others of the kind, and it seems strange that from the time—some forty years ago—his bequest came into force, regulations were not as a matter of course, and *ab initio*, made for giving degrees in the other faculty, besides that of Law, Divinity, and Medicine, which for so long a period has also possessed its bachelors and doctors in common with those three faculties. And it seems unreasonable that young Scotchmen should have to apply to the Professors of Music at Oxford, Cambridge, or Dublin Universities for a degree in Music, and that Edinburgh University should not do for Scotland that which Oxford and Cambridge do for England, and Dublin for Ireland, notwithstanding the fact of our metropolitan University also possessing a chair of Music. It appears that the first doctorate created by a public University was that of civil law, by the University of Bologna, A.D. 1130; and that in the other three faculties doctors were subsequently made in the following order,—medicine, music, divinity. In England a doctor of music of the name of Hamboys is mentioned in the time of Edward IV. in Wood’s *Fasti*; and in 1463 the degree of bachelor of music was conferred on Henry Habington, and that of doctor of music on Thomas Saintwix or Saint Juste, by the University of Cambridge. The professorship of Music at Oxford was founded in 1626 by William Heather, himself doctor of music, and that at Cambridge in 1684, the first professor there being N. Staggins, also Mus. Doc. Although information on the degrees granted in Ireland before 1764 is scanty, owing doubtless to the imperfect way in which records were kept in a country so long subjected to civil wars and convulsions of every kind, still the charter of Elizabeth, in consideration of which musical degrees were given, has these words: ‘Ut studiosi in hoc collegio libertatem et facultatem habeant gradus tum Baccalaureatus, Magisterii, et Doctoratus juxta tempus idoneum in omnibus artibus et facultatibus obtinendi,’ etc. etc. In 1764 the Earl of Mornington was elected Professor of Music at Dublin. In 1847 Dr. Smith was

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professor there; and in 1861 the present incumbent of that chair, Sir Robert Stewart, who had in 1851 graduated as doctor, succeeded to the office. At Durham University no degree in Music after examination has yet been given, there being no Professor of Music thereat. The question was mooted some years ago, but it was thought that Oxford and Cambridge were then sufficient to satisfy the needs of England as regards musical graduation in the usual way. Durham therefore contents itself with occasionally using the privilege, which it is presumed all Universities possess, of conferring the degree *honoris causa*, the recipients having been Sir Frederick Gore Ouseley, the present Professor of Music at Oxford, the late Rev. Dr. Dykes, and Dr. Henshaw and Dr. Armes, respectively the late and the present organist of Durham Cathedral. At the University of London the question of musical graduation has recently been discussed, and it is not yet settled. A printed paper is before the Commission labelled 'No. 5;' and for regulations, etc., on same subject at Oxford, see 'No. 2,' at Cambridge, 'No. 3,' and at Dublin, 'No. 4' of these printed reports. The Senatus of Edinburgh University has already discussed and approved regulations for conferring the degree of Bachelor of Music. This may be seen from the excerpt of a minute of a meeting on March 5, 1849, of which, together with minutes on the same subject of November 27, 1847, and January 27, 1849, a copy is before me. The minute of March 1849 is as follows:—'The regulations for conferring the degree of Bachelor of Music were approved of.' But although regulations were thus approved of, no one was ever in the position of having complied with the conditions; and so completely have they dropped out of sight, that University Commissioners have never dealt with them, and we do not even publish them in our Calendar. During the twenty-eight years which have passed since the last of these minutes was recorded, a great change in matters musical has occurred, a taste for and knowledge of music having greatly advanced in Scotland. Since my election to the chair of Music, applications have reached me from professional musicians in various parts of the United Kingdom for information as to regulations, requirements, etc. To such applications answer has had to be made that our University has not yet conferred the degree, and that although certain rules were formally approved, the matter is in abeyance, and that I much regretted not being authorized with any instructions or information upon which applicants might present themselves as candidates. But I am anxious to be allowed to take advantage of an opportunity now seeming to offer itself by the session of the present Royal Commission, of bringing the matter forward in the hope that it may be taken up, and that a long-cherished wish of mine may be accomplished by the re-establishment on a more practical and a more solid basis of the ancient degree in question, and that thus increased vitality and interest be given to the chair which I have the honour of holding, by placing it in the position of other chairs of Music, and giving to it powers and functions which should surely have been at first accorded to it, as probably intended by its founder. I have ascertained from my brother Professors of Music at Oxford, Cambridge, and Dublin some details as to musical graduation at those Universities. In respect to musical qualifications, fees, etc., I conclude that these would form the subject of deliberation by the Senatus and the University Court at a later period; but I may beg to refer the Royal Commissioners to the printed papers Nos. 2, 3, 4, and 5, already mentioned, for details of such qualifications, and to say that I should not propose a lower standard of musical proficiency for Scotch candidates than that required at the English and Irish Universities. But the points on which suggestions may be specially expected from me are—

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(1) concerning preliminary examinations in other subjects than music; and (2) concerning residence and attendance on classes here. As to the first of these points, holding a strong opinion that a University degree should not be given in any special subject unless to a candidate who has shown evidence of some general proficiency, I would propose to make preliminary examination obligatory on all candidates not graduates in Arts who present themselves for a degree in Music. The test required in 1849 by the *Senatus Academicus* here for all candidates not 'Bachelors of Arts' in any British University, was that they should exhibit satisfactory proof of having been for the last two years regular students in this or some other University where degrees in Arts are conferred (in addition to having attended the class of the Professor of Music in this University). It was doubtless in great measure owing to these pretty heavy requirements that no candidates for the musical degree here came forward. It must indeed be a rare occurrence that professional musicians, who give the long and arduous study necessary to the attainment of proficiency in their difficult and absorbing art, are able to devote sufficient time to prepare themselves to pass an examination equivalent to that for the degree of Bachelor of Arts formerly existing here. At Dublin University (Trinity College), the preliminary conditions are that 'Bachelors of Music must be matriculated in Arts, by passing an examination in any two Latin and two Greek books the candidate may select; in English and in Latin composition; in elementary English history; in modern geography; and in the elements of arithmetic and algebra; or he must pass instead an Arts examination in the following subjects:—(1) English composition, history, and literature; (2) one modern language—French, German, or Italian; (3) Latin, or instead of it, a second modern language; (4) arithmetic. These regulations were introduced by the present Professor of Music, Sir Robert Stewart, who was elected in 1861, before whose incumbency no education was required for the Mus. Bac. degree but knowledge of music. Sir Robert writes:—'We should have plenty of musical graduates, but for the preliminary test; but our authorities would rather adhere to their plan, and give no degree but to an educated person.' At Oxford and Cambridge Universities, no previous examination, until the present year, seems to have been required, but it is important to note that both of them have now followed the example of Dublin. From Professor Sir Frederick Gore-Ouseley, I hear that at Oxford the following regulation came into force this year:—'A candidate for the degree of Mus. Bac. must present his Testamur for Responsions, or a certificate from the delegates of local examinations in English, in Mathematics, in Latin, and in either Greek, French, German, or Italian. No residence is required, unless for those who elect to pass Responsions.' Writing on the 29th of March last, Sir Frederick adds, 'Our example is about to be followed at Cambridge;' and since then I have heard from the Professor of Music there that the result of the deliberations as to preliminary examinations is, that 'Candidates for musical degrees must first produce evidence of having satisfactorily passed one of the following examinations in literature and science:—(1) The previous examination of the University, parts I. and II.; or, (2) The examination of the Oxford and Cambridge Schools Examination Board; or, (3) The University higher local examinations; or, (4) The University senior local examinations.' At the University in London, it is mentioned in printed report No. 5, that it has not been deemed 'expedient that degrees in Music should be conferred on any exceptional conditions,' i.e. without passing the matriculation examination of the University, and that it is 'considered that every one receiving an academical distinction ought to have given evidence of general culture as

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well as of special proficiency. . . . There can be no doubt,' it is added in this report, 'that the value of that extended scheme of school education which the University has promoted from the first, has come to be more generally recognised on the part of the public generally, as on that of the musical profession. A musical degree, therefore, which should carry the attestation of general culture, would be a deserved advantage to its possessor. . . . Again, there has been of late years a great improvement in those cathedral schools in which the choristers receive a general education, concurrently with their musical training. This improvement would make it far more easy for youths thus educated to prepare themselves to pass the matriculation examination, and, further, one great difficulty has been removed from the path of such candidates by allowing them to bring up German at matriculation as a substitute for Greek.' Approved regulations for the University of London will be issued during the current year. It thus appears that there is now no exception to candidates for degrees in Music having to pass an examination in general proficiency. It remains for me to allude to the nature of such examination which I would propose in the case of Edinburgh candidates, though such details would, of course, be subsequently arranged by the *Senatus Academicus* and University Court. I would submit that these candidates should be subjected to much the same kind of preliminary test as that now enjoined (March 1877) for our medical graduates, or for graduates in science (May 1877). Those who have taken 'a degree in Arts of any University of the United Kingdom, or a degree in Arts of such colonial or other Universities as may be specially recognised by the University Court,' to be exempt from preliminary examination; all other candidates to produce a certificate of having passed examinations in alternatives mentioned on page 171 of our University Calendar of 1876-77, as accepted from alumni of Universities of the United Kingdom. But it seems to me that German, Italian, or French might be taken up optionally with, or instead of, Latin, as more useful (especially German and Italian) to musicians of the present day. In respect to residence, I am not prepared to urge it in the case of candidates not of Edinburgh University. It is not required at any other University, and it appears to me that if it were insisted on here, it would prevent a large number of persons at a distance from offering themselves for graduation. Moreover, the varied and extensive amount of musical study which should be required for even the Mus. Bac. degree is obviously best acquired at one of the conservatoriums or national schools of music, where thorough and efficient machinery exists, and also a staff of professors in every branch of practical and theoretical musical study, such as exists at no University. This view is, I imagine, shared by my *confrères* at the Universities above mentioned, at which musical degrees are given, by their not urging residence.

The excerpts of minutes of *Senatus* to which I have referred are as follows:—

'27th November 1847.—The Dean of the Faculty of Arts read the following report on degrees in Music, which had been agreed to by the Faculty of Arts:—

'The convener of the committee appointed to consider the regulations for conferring degrees in Music gave in the following report:—

"1. That no person shall be allowed to stand the examination for a degree in Music, until he has studied during one session in the University and regularly attended the lectures of the Professor of Music.

"2. That all Bachelors of Arts, in any British University, shall be considered sufficiently qualified in preliminary knowledge to stand the

examination on the theory of music, for the degree of Bachelor of Music.

"3. That all other candidates shall be required to exhibit satisfactory proof of attendance in this or some other University, where degrees in Arts are conferred, during two sessions, in addition to the session of their attendance on the lectures of the Professor of Music in this University; they shall also exhibit proof of attendance on all the classes requisite for obtaining the degree of Bachelor of Arts, and shall further be subject to an examination of the same amount and nature as that which is required for the degree of Arts in this University."

'27th January 1849.—The Dean of the Faculty of Arts presented conditions approved of generally by the Faculty of Arts, and by that Faculty recommended to the Senatus Academicus to regulate the conferring of degrees in Music:—

'1. That no candidate shall be allowed to stand the examination for a degree in Music, until he has regularly attended during one session the lectures of the Professor of Music in this University.

'2. That all Bachelors of Arts in any British University shall be considered sufficiently qualified in preliminary knowledge to stand the examination for the degree of Bachelor of Music in this University.

'3. That all other candidates shall be required to exhibit satisfactory proof of having been for at least two sessions regular students in this or some other University where degrees in Arts are conferred, in addition to the session required by Law I., and of having attended all the classes requisite for obtaining the degree of Bachelor of Arts, and shall further be subjected to an examination of the same amount and nature as is required for obtaining that degree in this University.

'The above regulations were ordered to lie on the table.'

'5th March 1849.—The regulations for conferring the degree of Bachelor of Music were approved of.'

12,010. *Dr. Muir*.—Where are the conservatoriums you refer to?—In London and at some of the chief cities abroad.

12,011. *The Chairman*.—There is one in Berlin, is there not?—Yes.

12,012. And Vienna?—Yes; and at Leipsic, Cologne, Stuttgart, Paris, Munich, &c.

12,013. *Dr. Muir*.—What examination would you yourself subject the candidates to before conferring the degree?—I have not thought that out, because I fancied it would be provided for by subsequent arrangement by the Senatus. I should propose, however, that the examination should not be less severe than the standard at Oxford, Cambridge, and Dublin.

12,014. Are they subjected to a series of questions on the theory and practice of music?—Yes, in every branch of music.

12,015. Do they require to perform also?—No; but to compose. Successful candidates are compelled to have their exercise performed in public.

12,016. *The Chairman*.—I understand you propose that the examination in music should be very much of the same character as has been conducted at Oxford, Cambridge, and Dublin?—Yes.

12,017. Would you require from a candidate for a musical degree any attendance at the University?—I should not be prepared to require that.

12,018. Would it not be fair to require him to attend on the class of the Professor of Music?—Perhaps for a session.

12,019. You would not require any qualification beyond that—I mean any qualification of residence or attendance?—No.

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12,020. As a test of the previous culture and acquirements of the student, you would be satisfied with a preliminary examination?—Yes.

12,021. In the preliminary examination, mathematics is one of the subjects?—Yes.

12,022. How far do you think proficiency in mathematics a necessary preliminary to the study of music?—I was not thinking of it as a preliminary to the study of music, but as showing evidence of general culture.

12,023. But are mathematical acquirements a necessary introduction to the study of the theory of music?—I hardly think so.

12,024. And do you think that any knowledge of physics or natural philosophy is necessary?—I think it would be useful, but I do not think it would in any way form a musician.

12,025. You therefore do not think it indispensable?—I do not think it would be necessary.

12,026. In short, in dealing with the preliminary examination, you are looking entirely to evidence of general culture?—Yes.

12,027. Do you not think that one course of study might be better than another in preparing a student for the scientific study of music?—Of course it would be useful knowledge for him. But in the way of making a musician of him, or teaching him anything that would form a subject for a musical degree, I do not perceive that other scientific study would be necessary.

12,028. Then you have no preference for any particular course of study?—I think the modern languages, such as German and Italian, would be very useful.

12,029. *Dr. Muir.*—Has the science of acoustics no bearing on the theory of music?—Collaterally it has. It is an interesting study for the musician.

12,030. *The Chairman.*—The preliminary branches of extra-professional education—that is to say, in the Medical Faculty—are English, Latin, arithmetic, the elements of mathematics, and the elements of mechanics; and the proficiency of students in these branches is ascertained by examination preliminary to the commencement of their medical study. That, I think, is the existing regulation?—Yes.

12,031. Do you think that a sufficiently stringent examination as regards language? You will observe there are no languages there except English and Latin?—No, I should not say that was sufficient; I would add something to that.

12,032. What would you add?—I would add two modern languages, —or require Latin and a modern language.

12,033. And if you had two modern languages you would dispense with Latin, would you not?—I think so.

12,034. Would you give any value to Greek?—It seems to me that for musicians the other three would be more useful.

12,035. *Dr. Muir.*—To which would you attach the greatest importance—French, German, or Italian?—It is rather difficult to answer that: French would be generally useful; but, musically, Italian would be at least as useful. German, I think, of the three modern languages, would be most useful, because so many modern theoretical works on music are in German.

12,036. *The Chairman.*—The elements of mechanics is also mentioned as a subject in the list I have given you; do you think that of much importance?—I should not be inclined to urge it.

12,037. *Dr. Muir.*—Might not acoustics be a good subject?—I think it would be useful. You will perhaps permit me to refer to page 17 of this year's Calendar. The examination set forth there seems to me

kind of preliminary exercise advisable. Several alternatives are given there.

12,038. *The Chairman*.—I see it is said that a candidate must pass in English, Latin, arithmetic, the elements of mathematics, and the elements of mechanics, and also in at least two of the following subjects, viz. Greek, French, German, higher mathematics, natural philosophy, logic, and moral philosophy. Now, is that rather what you would prefer as a preliminary examination?—Some portion of it.

12,039. And as a test of the student's previous culture?—Yes. I have not gone into the subjects for examination, because I thought, as mentioned in my statement, that would be arranged afterwards, if the degrees were allowed to be conferred.

12,040. *Dr. Muir*.—What degrees would you propose to confer?—The degrees of Bachelor of Music and Doctor of Music.

12,041. *The Chairman*.—Then the examination you have been referring to hitherto, both preliminary and final, in musical science, has reference to the Bachelor's degree?—Yes.

12,042. Would you require any further examination or any test of qualification before conferring the Doctor's degree?—In music a very much higher examination, and an interval of at least five years between the conferring of the Bachelor's degree and the Doctor's. That is the rule at Oxford, and, I think, also at Cambridge and Dublin.

12,043. There is at all the other Universities, I suppose, an additional examination or test of qualification before the doctorate is conferred?—Yes.

12,044. Would you explain what is the course of instruction you give to your students?—Instruction in theory, in harmony, and in counterpoint. I also give them instruction practically. I find it inadvisable to teach the theory of music unless some instrument is studied. It is difficult for a student really to understand it unless he plays on some instrument, and I always teach the two together.

12,045. Are your lectures conducted in the building where your organ is?—I seldom give formal lectures.

12,046. But I am calling your course of instruction lectures for shortness. Is your instruction given there?—Yes.

12,047. And there you have the necessary instruments to enable you to illustrate your instruction?—Yes.

12,048. *Dr. Muir*.—Then instruction is not given in the shape of formal lectures?—I have not given it in that form lately, because the class has been small. The particular difficulty in the way of lecturing is, that each of the members of the musical class is at a different stage of progress. Some are quite beginners in harmony, while others are more advanced. I find a difficulty in teaching music in classes. I give a good deal of time to each student individually.

12,049. How many hours daily does that occupy?—They come to me twice a week.

12,050. For a considerable part of the day?—Each student gets an hour a week separately.

12,051. *The Chairman*.—Do you charge any fees?—The fees for the smaller class are the same as for the other Arts classes, as appointed by the University Court.

12,052. Are your accommodation and appliances good?—Yes; particularly the collection of instruments.

12,053. *Mr. Campbell Swinton*.—I suppose, in suggesting the necessity of preliminary culture, you look to the fact that, besides the general advantage, every man possessing a University degree of any kind should

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have culture; but you also advert to the fact that this degree would be a door of admission to the General Council?—Yes. I think no degree should be given by a University in any special subject unless a certain amount of general culture or acquirement is possessed by the candidate.

12,054. *Dr. Muir*.—Is twice a week as often as your students desire instruction?—It is as much as they can get through. I give them work to prepare for me.

12,055. *The Chairman*.—You mean that you give them a great deal of work to do at home before they come back to you again?—Yes.

12,056. *Mr. Campbell Swinton*.—Adverting to the general principle of University training, namely, that the University is not only a degree-granting body and an examining body, but also a teaching body,—do you think it would be quite impossible to require any special attendance at the University irrespective of attendance at the class of Music?—It would no doubt be possible. But it seems to me that it would keep a great many candidates away. The fact of their having to come and reside in Edinburgh would deter many who live at a distance.

12,057. Would you not, then, even impose the necessity of attending the class of Music?—I think that it might be formally required, but I am not prepared to insist upon it.

12,058. That is very liberal on your part; but if you are to give the degree without any attendance on the University at all, even in a particular faculty, would not that be a great departure from our general academic rule?—It is different to any rule that exists at Edinburgh University; but Music is different from any other subject. The course I have suggested is the course which is adopted at other Universities—I mean with reference to Music.

12,059. *The Chairman*.—Is any attendance required on the class of Music in Oxford, Cambridge, or Dublin?—None at all. There is no class.

12,060. *Mr. Campbell Swinton*.—You have no desire, have you, for honorary degrees in Music?—I suppose the University has that power already.

12,061. *The Chairman*.—Suppose the University has not that power, would you desire that it should have the power of granting honorary degrees in Music?—Yes.

12,062-3. Why do you desire that?—I think that some distinguished musicians would appreciate the honour.

12,064. *Mr. Campbell Swinton*.—Do you think there is no anomaly in, or objection to, having the degree of Doctor of Music as an honorary degree, and also one which could be obtained on examination?—No. I think it exists at other Universities, certainly at Cambridge.

12,065. In the Law faculty the doctorate is honorary, and the highest degree to be obtained on examination is the bachelorship?—Yes; but in Medicine it is not honorary.

12,066. Divinity is in the same position as Law. Still you would see no anomaly in, or objection to, the same title being given indiscriminately to a man who gets it as an honour and to one who has gained it by examination?—I do not think there would be objection, because, if it is conferred as an honorary degree, it would only be conferred on persons who had given undoubted proof of proficiency, and who, from position or age, could scarcely present themselves for examination.

12,067. Would it meet your views to follow the precedent of the other faculties, and let the bachelorship be the highest degree that could be gained by examination, and the doctorate entirely honorary?—Then there would not be any test for the latter.

12,068. You think there would not be the same inducement to go on with the study of music after obtaining the bachelorship?—Hardly. After the examination for the bachelorship there is still the higher doctorate to aspire to.

12,069. And you prefer the higher examination for the doctorate if it is to be gained by examination?—Yes, as being a higher degree.

Adjourned.

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FRIDAY, 7th December 1877 (*Seventy-Second Day*).

PRESENT,—

THE LORD JUSTICE-GENERAL, *Chairman.*

LORD MONCREIFF.

DR. JOHN MUIR.

JAMES DONALDSON, M.A., LL.D., re-examined.

12,070. *Dr. Muir.*—You have already been examined before this Commission?—Yes.

12,071. But you were not formerly examined on the subject of the Theological Faculty? Have you anything to say on that point?—I might say a good deal. I think that for the study of theology as much freedom as possible is desirable. Theology is a science, and therefore the less fettered it is, the more likely will the results be valuable to the community and in themselves, and every means should be taken to make it as unfettered as possible. It seems to me that this can naturally be done by making the science of theology a science within the University, uncontrolled by those outside of it; and therefore, if the University Court alone had the control over the theological classes, as it has the control over all the other classes, I think that would be perfectly sufficient, and nothing more would be requisite for rendering them free.

12,072. But who has the control now over the classes?—In any case the Church may interfere with the opinions of a theological professor. I may say that, so far as my experience of theology has gone, there is in Scotland a great number of men who are remarkably well able to deal with theological questions. I had a remarkable illustration of that when I was asked, along with Dr. Roberts, to edit a translation of the Fathers of the Church for the first three centuries. It was thought that such a thing could not be done in Scotland; but my experience was, that while at first it was rather difficult to get the men, I found before I was done with my work that the number of men who were capable of doing it was very large. There are capable and able scholars throughout the Church, but they have no sphere in which to work. The work I have alluded to brought them out to a certain extent, but there is no general sphere for them; and in a number of cases of which I have personal knowledge, I know it is the fear that the Church will assail them that keeps them back from investigation and publication. They may be perfectly sound in other respects, but if they think that the publication of results will bring upon them an expression of opinion or prosecution from the Church, it is not likely they will go very thoroughly at least into the examination of questions before the public; and it seems to me that in this way our theological literature has suffered immensely. Now, if the professors of

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the University were simply under the control of the University Court, and not bound by any test to a Church, I think it is likely they would lead, instead of merely being exponents of the ordinary theology—they would naturally lead in the matter of investigation.

12,073. But if those gentlemen appointed professors looked forward to the ministry of the Church, would they not feel themselves equally fettered by that very circumstance, whether they in their capacity of professors subscribed any test or not?—Well, I do not think so. I think that if you say to a man, ‘Here is a subject which you are to investigate to the utmost; you are not tied in any way, and you have simply to search for the truth,’—then, even though he has been attached to a particular Church, that fact does not fetter him for the time. It is a different thing when he is threatened by prosecution behind it.

12,074. And runs the risk of being turned out?—And runs the risk of being turned out. I have to add, that in a great number of the subjects which belong to the Theological Faculty, it really is a matter of comparative indifference what the person himself believes as his convictions. Hebrew, for instance, can be taught by any man who knows Hebrew well, whatever his opinions may be. So in regard even to subjects like Hebrew theology. The honest man, whatever his own convictions may be, will give you the fairest information of what is in the Hebrew books; and that applies even to the New Testament. There was a remarkable case of that sort, to which I may appeal as showing that difference of opinion does not necessarily create a disagreement with the ordinary doctrine. The late Dr. Crawford published a book upon the Atonement, and one of the authorities he quoted in regard to that doctrine was Ferdinand Christian Baur, the founder of a school of theology in Germany, which perhaps was the most antagonistic to our theologians. Baur gave it as his opinion that such was the doctrine stated in the New Testament. He did not believe it himself, but still he said it was there.

12,075. And Dr. Crawford said on his part that that was the doctrine?—Yes; he expounded it, and appealed to Baur as a man who, though he did not feel himself bound to believe the New Testament, understood the New Testament upon that point in the very way in which he (Dr. Crawford) did.

12,076. *Lord Moncreiff*.—It was a matter of interpretation?—A matter of interpretation.

12,077. Dr. Crawford took Baur’s translation, which was right, but then Baur did not believe the right translation to be true?—It was hardly a matter of translation; it was exposition, but that is really based upon translation. It was said by Luther that all theology was a thorough knowledge of Hebrew and Greek grammar, and there is a great deal of truth in that. Of course, in regard to the suggestion I have made, I see a difficulty with respect to the Churches outside.

12,078. I think there would be great difficulty, considering who the students are that come inside.—But that could be removed to a certain extent. I think the University should be independent; and I think the difficulty could be removed by the University giving to everybody who liked the opportunity of having a professor of their own in the University, who could teach his special students the doctrines which their particular Church believed, and the reasons for it in each case. Of course, the teacher in this case would be strongly convinced of the truth of what he was teaching. I think, too, that so long as there is an Established Church, the professor of that Church should be one of the regular University professors, while the other professors would simply be admissible without forming part of the faculty.

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12,079. *Dr. Muir*.—Under such a system, do you think that the Churches would recognise the teaching of the professors?—I do not think they would refuse, but I cannot say,—I should not like to judge. In order to carry out what I believe to be the right thing, it would be essential that the election of professors should be in the hands of the University Court, and I think the University Court would be a fair body to decide whether a man was the best capable of so far representing the country. I suppose them to act judiciously in the elections.

12,080. Then, in order to carry out the principle you have now propounded, is there any specific scheme by which you think it would be done?—Well, in regard to theology altogether, I think the present scheme of study should be revised. There is no doubt that one reason why we are comparatively behind in theological studies is the limited number of chairs that we have, and the circumstance that almost none of the men who occupy our chairs can afford to give specimens of independent research. Each man has to go over the whole subject,—to create, as it were, a text-book of that particular subject, but a personal text-book. Now the subjects that are discussed in theology are so numerous, that at any rate the number of professors should be doubled or trebled, so that one man should have Hebrew, another Hebrew theology, and another the history of Hebrew books,—and the same with the New Testament; and possibly an additional man for the discussion of the archaeological features of the matter, such as mss. and other similar topics, because these form a very long and difficult study; and then there should be two or three for history. But I am very much inclined to the German plan, which makes a man a professor and lets him choose his particular subject, the professors at the same time arranging amongst themselves, so that no important branch is neglected.

12,081. Might that not involve the risk of neglecting some particular department?—Well, they arrange that. They arrange amongst themselves that no important sphere of investigation is omitted. Then there is another matter on which I have a very strong opinion, but it depends on what else might be done with the University. In harmony with the opinion that the knowledge of Greek and Hebrew is the first foundation for thorough theological learning, if the theological classes are to continue as at present, the students should be obliged to have Latin, Greek, and Hebrew during the whole course of their studies, so as to keep themselves up in these subjects. There is no doubt that if a man has the faculty of Latin, Greek, and Hebrew, he delights in theological investigation; but if he merely reaches a certain point where it is toil and labour, you cannot expect him to enjoy it. The whole matter depends upon reaching a certain point of easy management and mastery of the language. If you once get that, the passion for investigation is so strong and delightful that you will never leave it off; but if you have not that, you must of necessity be driven back from it, and you will lose in that case.

12,082. *Lord Moncreiff*.—You would have no control over the teaching at all?—The University Court would have control over it.

12,083. And the University Court alone?—The University Court alone. I think, also, considering the number of theological students, it would be better if there were fewer theological halls. There is a considerable waste of power in so many men teaching the same thing. I would not diminish the number of professorships, but I would increase the number of subjects.

12,084. If you could combine the Presbyterian bodies, you might in that way increase the professorships and have a more efficient staff?—Yes; I think something should be done in that direction, at any rate.

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12,085. *Dr. Muir*.—Have you any clear idea as to what is the present state of theology in the Church—that is to say, of the attainments of the ministers of the several bodies?—I have a very high opinion of the capabilities of our Scotch men.

12,086. *Lord Moncreiff*.—And of their attainments?—Yes, of their attainments up to a certain point.

12,087. It is the development of their attainments that you want?—Yes. I may mention, as another instance of their capacity, that after we had finished the Patristic writers, I was asked to prepare a translation of Chrysostom's works. When I came to that second scheme, the difficulty was to select my men, I had so many; and I am perfectly certain, that if they had the opportunity in any way of bringing out their knowledge fully and freely, we should have a first-rate set of theologians in Scotland; and all the direction of the country goes in that way.

12,088. Did you find a high attainment in classical knowledge?—A very high attainment; only it is to be remembered that this attainment is apt to diminish if it is not increased. When a man becomes older you may not get the same amount.

12,089. *Dr. Muir*.—Is there not also a very large proportion amongst whom the attainments are very low?—That is perfectly certain. There is a very large number whose attainments are very low. If they are not very good, they become worse and worse. I have met again and again with cases of men almost entirely ignorant of the Greek of the New Testament.

12,090. *The Chairman*.—Of course that observation may apply to any Church?—Yes, to any Church. In the Church of England you have a larger number of first-rate scholars, but then you have others worse even than those in the Scotch Churches,—you have those Literates, who are more ignorant in many respects. The average in the Scotch Church, I should say, is in some respects higher, but still there is a considerable number who cannot use their Greek Testament with independence, much less their Hebrew Bibles; and that ought never to be. Of course, if the schools were arranged so that we could send them away at seventeen or eighteen thoroughly equipped, those studies would be unnecessary in the University.

12,091. *Dr. Muir*.—Latin and Greek?—Yes.

12,092. And Hebrew?—I do not think we could very well undertake Hebrew, but still they do it in Germany. There is another point. If there was a greater freedom in the curriculum, I do not see why some of the Arts students should not occasionally take a class in theology. I think they would be much the better of it if the means were afforded them. I think it is a pity that it is only the clergy who are united together in their studies in theology.

12,093. You would have lay professors?—Yes, there might be lay professors. I assume the possibility of electing lay professors when I say the University Court should alone have control over them. In some colleges sometimes a lay professor is elected,—not with us, of course,—but practically some of them are lay professors. In teaching Hebrew, for instance, there is no reason why a man should be anything else.

12,094. Have you fully stated the chairs you would institute?—Generally I have, but it would depend on so many elements that it would be premature to draw up an exact scheme before you saw your way to something like realization. It would depend on the means and the willingness of the community, and so on. One could draw out an ideal scheme.

12,095. *The Chairman*.—Have you any objection to give us your ideal scheme?—You would have first a professor of Hebrew, dealing simply with the teaching of Hebrew; then you would need one or two professors dealing with the Hebrew Scriptures, and one dealing with the intro-

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duction to the Hebrew writings—that is to say, a knowledge of mss. and the history of the Hebrew language, along with the critical introduction to each writer. Then you should have a professor of archæology pure and simple—that is to say, that he should deal with the history of mss., and with the mss. especially of the New Testament, and all that we call special archæological research in connection with mss. Then there would be a professor of Hellenistic Greek and the history of the Greek language in connection with the New Testament and its development through the ecclesiastical writers; and two or three professors would be required for the investigation into the books of the New Testament, and three or four for the history of dogma and for ecclesiastical history in its various phases—(say) ancient history, middle-age history, and modern history. Of course I would never dream of expecting a student to attend all these subjects. But the professors would investigate and give to every student the best work our country could do in that direction.

12,096. How many professors do you think you would have altogether in one University?—I should say fifteen or twenty professors in theology, supposing there was one Theological Faculty for the whole of Scotland.

12,097. *Dr. Muir*.—Do you think one faculty would be enough?—Pretty nearly so, I should think. I should not like to speak very positively, because I do so only from estimating the various numbers that exist, but it would be better to have one strong Theological Hall than a number of halls all working separately.

12,098. *Lord Moncreiff*.—Then is it your view that this Faculty of Theology is to be unrestricted as regards the tenets taught?—Yes, quite unrestricted, except by the University Court. I suppose they would have to legislate on the subject. I think the University Court would feel the pulse of the nation more exactly than an ecclesiastical assembly could do. I would not say absolutely unrestricted, because that might be prejudicial to the interests of the University.

12,099. But you think the control of the University Court would be quite sufficient for the purpose?—Yes.

12,100. Would it be sufficient to create confidence on the part of the Church—that is to say, to induce the students who would go into the Church to attend?—Well, that would depend on the judiciousness with which it was done; but I think it might. I do not see any difficulty. The fact of the matter is, that even in regard to all the subjects we teach, such as Greek, we could introduce a number of strange opinions if we felt inclined; but still there is confidence in us.

12,101. But when you come to Professors of Theology it is a different affair?—It is; because they have been treated differently,—because we have viewed the matter differently up to this time. No doubt political feeling is often as keen as theological feeling, and yet a professor might make his class very political.

12,102. And many a professor has done so?—Yes; and yet we do not feel any difficulty about the matter.

12,103. But that is not quite the same thing?—I do not see why it might not come to be the same thing.

12,104. I am afraid you might find attendance at the University materially decreased?—Yes; you must carry to a certain extent the nation along with you: it would all depend upon that. I have no doubt the first election by the University Court in such circumstances would be a very safe one.

12,105. *Dr. Muir*.—Suppose the scheme you have sketched out not to be carried into effect for some time, would you think it a good plan to have teachers licensed by the University, paid or unpaid, and allowed to teach unrestricted by tests?—Yes, I would go in for anything that would help

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forward the truth,—I do not care how it is done. I see no difficulty there. I think the more a University can embrace within itself men who are really investigating, the better. But, then, it does not harmonize very well with our present system; so long as a student must attend a certain number of classes absolutely, anything like the freedom of the German student is out of the question—that is, the freedom of going to different classes. Most of those classes would have a difficulty in living.

12,106. *The Chairman*.—Suppose you had such licensed lecturers, where would the students come from?—By the licensed lecturer creating the students. The right man will always create any number of students.

12,107. You do not think any of the existing students would attend?—Yes, I believe a number of them would. I feel perfectly certain that if you got a man who was really a help to the students, however different he might be from the ordinary theology, the students would go to him. I feel no doubt about that; but perhaps others might not like them to go.

12,108. Have not the theological students pretty hard work as it is during their career in the Faculty of Theology?—I would not like to say what they have, but they have not a long time at it. The session lasts scarcely five months, and there are four sessions—or practically three often—which is about 15 or 20 months altogether. I do not think they are necessarily hard worked, though they may and often do work hard.

12,109. *Lord Moncreiff*.—And many of them have other pursuits?—Yes, in fact the time is rather long. To protract it over four sessions is rather a tax upon them, and a session of eight months—two terms in the year—would be much better than the present arrangement. What seems to me the great defect, and what must necessarily be the defect as things stand, is that the students have necessarily to go over a great deal of cram matter—that is to say, the professor is professor of a subject, and he tries to take his students over the whole subject; and when a man goes from day to day to a new bit, whether his mind is willing to go to it or not, the work is never so satisfactory as when it is a piece of fresh investigation, and it is not so stimulative. The work might be done to a considerable extent out of a text-book as it is just now, and the professor himself has not the time or opportunity of giving what he might give.

12,110. *Lord Moncreiff*.—If you had two antagonistic professors under your scheme, it might be rather awkward?—I do not think so. Indeed, I rather think it would be an advantage, because with antagonistic opinions, and the discussion of those opinions, you would have life and energy. I know that when Baur had his flourishing school there was a remarkable man opposed to him in the same place, and the antagonism was strongly stimulative.

12,111. The difficulty is that the Church would not sanction such a scheme?—I do not think that difficulty would be so great, because the University Court would probably appoint safe men at first. The country would have a good deal of confidence in such an appointing body. Then, the men who are in would feel bound to search for the truth, and nothing more, and there would be more confidence felt by the country in the professors, regarding whom it would be said, 'You are unbiassed men.' I can easily conceive a number of professors propounding very curious opinions, but those opinions very soon come to their own level when not properly supported. The great difficulty certainly is the Church; but if the Churches were allowed to have men of their own, who argued for their own convictions so far as they were different from each other, I do not see there need be any great difficulty there.



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